March 2005

District of Columbia Department of Health

Pandemic Influenza Preparedness Plan

Core Document

825 North Capitol Street NE, 4th Floor, Washington DC 20002 (202) 442-5999

District of Columbia Department of Health

Pandemic Influenza Preparedness Plan

Table of Contents

Pandemic Influenza Plan Development Team

Abney, Karla J., RN, MSN
Adverse Events Coordinator – Smallpox Program
Emergency Health and Medical Services Administration – DC Department of Health

Adams, Sherry B., RN
Assistant Senior Deputy Administrator
Emergency Health and Medical Services Administration – DC Department of Health

Berry, Karyn, MD
Chief
Bureau of Communicable Disease Control – DC Department of Health

Campbell, Jacquelyn, RN, MSN, CPNP
Nurse Specialist
Immunization Program – DC Department of Health

Davies-Cole, John, PhD
Chief
Bureau of Epidemiology & Health Risk Assessment – DC Department of Health

Hardeman, Bernard, RN
Strategic National Stockpile Coordinator
Emergency Health and Medical Services Administration – DC Department of Health

Knuckles, Maurice, PhD
Director
Public Health Laboratory – DC Department of Health

Sisk, Mary Kate, RN
Infection Control Nurse
Bureau of Communicable Disease Control – DC Department of Health

Section 1

Influenza Basics

Influenza viruses are unique in their ability to cause sudden, pervasive infection in all age groups on a global scale. Influenza viruses present biological threats because of a number of factors, including a high degree of transmissibility, the presence of a vast reservoir of novel variants (primarily in aquatic birds), and unusual properties of the viral genome. Humans have been infected in recent avian influenza outbreaks in Asia (1997, 1999, 2003, 2004) and in Europe (2003). Such occurrences are reminders that a novel strain could occur at any time.

The national response to a pandemic will largely reflect the ability of states and local areas to respond. Because of the potential impact of a pandemic and the need to coordinate a number of partners to effectively respond, planning for such an event needs to occur in advance. An Influenza Pandemic would require an immediate and coordinated response from the District of Columbia's Department of Health (DOH) the medical community, and other stakeholders to maintain the health and well being of the residents, workers and visitors to the District of Columbia.

A major difference between an influenza pandemic and natural disasters such as a tornado or hurricane, or intentional release of a biological, radiological, or chemical agent, is that a pandemic is likely to cause both widespread and sustained effects and is thus likely to stress the resources of every state. This broad resource strain will make it difficult to shift resources between states and reinforces the need for each state to develop a plan, reflecting a substantial degree of self-reliance.

The public health response to an influenza pandemic would include active and passive disease surveillance and reporting, epidemiologic investigation, public information, and monitoring and support of the healthcare system response. Implementation of isolation and quarantine regulations along with other emergency actions may be required to control the spread of the disease. Clinical recommendations including those for diagnostic testing, laboratory identification, treatment of patients, and infection control procedures have been formulated and published by the Centers for Disease Control and Prevention, and undergo frequent revision and updates.

The plan will serve as a supplemental annex to the DC DOH Bioterrorism Response Plan, and addresses such issues as command and control procedures, legal authority, surveillance and epidemiologic investigation procedure, organization, security, communications, and education and training. This plan and the DC DOH Bioterrorism Response Plan are integral parts of the Terrorism Annex to the District Response Plan (DRP).

I. Background on Influenza

Influenza (commonly called "the flu") is a contagious respiratory illness caused by influenza viruses. Infection with influenza viruses can result in illness ranging from mild to severe with potentially life-threatening complications. An estimated 10% to 20% of U.S. residents get the flu each year: an average of 114,000 people are hospitalized for flu-related complications and 36,000 Americans die each year from complications of flu. Influenza viruses can also cause pandemics, during which rates of illness and death from influenza-related complications can increase dramatically worldwide. Influenza viruses cause disease among all age groups. Rates of infection are highest among children, but rates of serious illness and death are highest among persons aged $\geq$ 65 years and persons of any age who have medical conditions that place them at increased risk for complications from influenza.

In the Northern hemisphere, winter is the time for flu. In the United States, the flu season can range from October through March, and even past March in some years. During the past 21 flu seasons, months with the heaviest flu activity (peak months) occurred in December in 4 years, January in 5 years, February in 9 years, and March in 3 years.

A. Avian Influenza

Avian influenza (bird flu) is an infection caused by viruses that occur naturally among birds. Only influenza A viruses infect birds. Wild birds are the natural host for all subtypes of influenza A virus. Wild birds worldwide carry the viruses in their intestines, but usually do not get sick from them. Infected birds shed flu virus in their saliva, nasal secretions, and feces. Avian influenza is very contagious among birds and can make some domesticated birds, including chickens, ducks, and turkeys, very sick and kill them. Susceptible birds become infected when they have contact with contaminated excretions or surfaces that are contaminated with excretions.

The risk from avian influenza (bird flu) is generally low to most humans because the viruses occur mainly among birds and do not usually infect humans. During an outbreak of avian influenza (bird flu) among poultry (domesticated chicken, ducks, turkeys), there is a possible risk to people who have contact with infected birds or surfaces that have been contaminated with feces from infected birds.

There are many different subtypes of type A influenza viruses. All subtypes of influenza A viruses can be found in birds. Avian influenza viruses refer to those influenza A subtypes that continue to occur mainly in birds. They do not usually infect humans, even though we know they can do so.

When we talk about "human influenza viruses" we are referring to those subtypes that occur widely in humans. Humans can be infected with influenza types A, B, and C. There are only three known subtypes of human flu viruses (H1N1, H1N2, and H3N2); it is likely that some genetic parts of current human influenza A viruses came from birds originally.

Avian Influenza Infection in Humans

Avian influenza viruses may be transmitted to humans in two main ways:

- Directly from birds or from avian virus-contaminated environments to humans.

- Through an intermediate host, such as a pig.

While it is unusual for people to get influenza infections directly from animals, sporadic human infections and outbreaks caused by certain avian influenza A viruses and pig influenza viruses have been reported. No conclusive evidence of sustained human-to-human transmission has been found.

Most cases of avian influenza infection in humans are thought to have resulted from contact with infected poultry or contaminated surfaces. Of the documented cases of human infection with avian influenza viruses, illnesses caused by highly pathogenic viruses appear to be more severe.

The incubation period for influenza is one to four days, with an average of two days. Influenza illness typically resolves after a limited number of days for the majority of persons. The symptoms of avian influenza (bird flu) may depend on which virus caused the infection.

B. How Influenza Viruses Change: Drift and Shift

Influenza viruses can change in two different ways:

"Antigenic drift," occurs through small changes in the virus that happen continually over time. Antigenic drift produces new virus strains that may not be recognized by antibodies to earlier influenza strains. This is one of the main reasons why people can get the flu more than one time. In most years, one or two of the three virus strains in the influenza vaccine are updated to keep up with the changes in the circulating flu viruses. For this reason, people who want to be immunized against influenza need to receive a flu vaccination every year.

"Antigenic shift" is an abrupt, major change in the influenza A viruses, resulting in a new influenza virus that can infect humans. Antigenic shift results in a new influenza A subtype. If a new subtype of influenza A virus is introduced into the human population, if most people have little or no protection against the new virus, and if the virus can spread easily from person to person, a pandemic (worldwide spread) may occur.

C. Pandemic Influenza History

Pandemics occur when an entirely new subtype of influenza A virus emerges (antigenic shift) through recombination of human and animal antigens (swine or avian). Not all antigenic shifts cause a pandemic, but if a novel subtype is virulent and easily transmitted person-to-person, a pandemic is probable. The devastation that could accompany influenza pandemic is not reflected by the public's perception of the annual flu season, despite the fact that influenza causes significant morbidity and mortality each year. The flu is too often associated with a serious winter cold, a vaccination shot, or an illness that is life threatening only to young children and the elderly. A review of pandemic history forces reconciliation of this perception with the potential severity of a future pandemic.

Three pandemics have occurred in the last century: Spanish Flu in 1918, Asian Flu in 1957 and Hong Kong Flu in 1968. The virus responsible for the Spanish Flu originated from swine while the viruses in the other pandemics contained gene segments, which were closely related to avian viruses. The impact of the Spanish flu was unprecedented, with an estimated 500,000 deaths in the United States and 20-50 million deaths worldwide. While it is true that during a regular flu season 80 to 90

percent of all deaths occur in those 65 years of age and older, during the 1918 pandemic nearly half of those who died were young, healthy adults. Many people died within the first few days after infection and others died of complications soon after. The responsible strain type A (H1N1) circulated in the general population until 1950's and can still be identified in pigs in some countries.

Spanish flu was replaced by Asian flu, which occurred in 1957-1958 and was due to type A (H2N2). The age specific death rates were highest among the very young and the elderly. The overall impact however was only one tenth of that observed during the 1918 pandemic. Hong Kong flu (H3N2) first occurred in 1968. The mortality rate due to this strain was almost half that due to Asian flu. They caused fewer deaths in the United States (104,000 collectively, 70,000 and 34,000 respectively). This has been attributed to less virulent viruses, antibiotic treatment of secondary infections, and improved supportive care.

Significant societal changes have occurred since the last substantial pandemic in 1968, making it difficult to predict the level of illness and disruption that a pandemic could cause today. National and international travels have increased tremendously, which could potentially speed the spread of influenza virus from one country to another.

The first case of HIV/AIDS had not been identified at the time of the last pandemic. The 2001 United Nations AIDS epidemic update estimates that there are now 40 million people in the world living with HIV/AIDS. Research suggests that the influenza-related mortality in person with AIDS is similar to that in the general US population over 65 years of age, a group already identified as high priority. These factors, along with increase urbanization and crowding, may change the face of the next influenza pandemic.

D. Clinical Features of Influenza

The main way that influenza viruses are spread is from person to person in respiratory droplets of coughs and sneezes. (This is called "droplet spread.") This can happen when droplets from a cough or sneeze of an infected person are propelled (generally up to 3 feet) through the air and deposited on the mouth or nose of people nearby. Though much less frequent, the viruses also can be spread when a person touches respiratory droplets on another person or an object and then touches their own mouth or nose before washing their hands. A person can spread the flu starting one day before he or she feels sick. Adults can continue to pass the flu virus to others for another three to seven days after symptoms start. Children can pass the virus for longer than seven days. Symptoms start one to four days after the virus enters the body. Some persons can be infected with the flu virus but have no symptoms. During this time, those persons can still spread the virus to others.

The incubation period for influenza is 1-4 days, with an average of 2 days. Adults typically are infectious from the day before symptoms begin through approximately 5 days after illness onset. Children can be infectious for $\geq$ 10 days, and young children can shed virus for $\leq$ 6 days before their illness onset. Severely immunocompromised persons can shed virus for weeks or months.

Uncomplicated influenza illness is characterized by the abrupt onset of constitutional and respiratory signs and symptoms (e.g., fever, myalgia, headache, severe malaise, nonproductive cough, sore throat, and rhinitis). Among children, otitis media, nausea, and vomiting are also commonly reported

with influenza illness. Respiratory illness caused by influenza is difficult to distinguish from illness caused by other respiratory pathogens on the basis of symptoms alone.

Many people use the term "stomach flu" to describe illnesses with nausea, vomiting, or diarrhea. Many different viruses, bacteria, or even parasites can cause these Symptoms. While vomiting, diarrhea, and being nauseous or "sick to your stomach" can sometimes be related to the flu – particularly in children – these problems are rarely the main symptoms of influenza. The flu is a respiratory disease and not a stomach or intestinal disease.

E. Types, Subtypes, and Strains

There are three types of influenza viruses: A, B, and C.

Influenza type A viruses can infect people, birds, pigs, horses, seals, whales, and other animals, but wild birds are the natural hosts for these viruses. Influenza type A viruses are divided into subtypes based on two proteins on the surface of the virus. These proteins are called hemagglutinin (HA) and neuraminidase (NA).

Subtypes of influenza A virus are named according to their HA and NA surface proteins. For example, an “H7N2 virus” designates an influenza A subtype that has an HA 7 protein and an NA 2 protein.

Influenza Type B

Influenza B viruses are normally found only in humans. Unlike influenza A viruses, these viruses are not classified according to subtype. Although influenza type B viruses can cause human epidemics, they have not caused pandemics.

Influenza Type C

Influenza type C viruses cause mild illness in humans and do not cause epidemics or pandemics. These viruses are not classified according to subtype.

Strains

Influenza B viruses and subtypes of influenza A virus are further characterized into strains. There are many different strains of influenza B viruses and of influenza A subtypes. New strains of influenza viruses appear and replace older strains. This process occurs through a type of change is called “drift” When a new strain of human influenza virus emerges, antibody protection that may have developed after infection or vaccination with an older strain may not provide protection against the new strain. Thus, the influenza vaccine is updated on a yearly basis to keep up with the changes in influenza viruses.

Influenza A viruses are constantly changing, and might adapt over time to infect and spread among humans. Influenza viruses are changing by antigenic drift all the time, but antigenic shift happens only occasionally.

Influenza type A viruses undergo both kinds of changes; influenza type B viruses change only by the more gradual process of antigenic drift.

II. Background Assumptions

- Influenza is a highly transmissible viral illness that represents a threat to public health and safety.
- Transmission of the disease occurs through close contact with a symptomatic individual
- For a new virus subtype to cause a pandemic:
    - The surface glycoprotein must be altered
    - It must be readily transmissible from humans to humans
    - There must be a low level of immunity in the population, and
    - The strain must be virulent
- The impact of the next pandemic could have a devastating effect on the health and well being of the American public. In the United States alone:
    - Up to 200 million persons will be infected
    - Between 40 and 100 million persons will become clinically ill
    - Between 18 and 45 million persons will require outpatient care
    - Between 300,000 and 800,000 persons will be hospitalized
    - Between 88,000 and 300,000 persons will die
- Once a new pandemic influenza virus emerges and spreads, it typically becomes established among people and circulates for many years.
- There are specific preventive and treatment measures for influenza.
- The US Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) conduct extensive surveillance programs to monitor the occurrence of influenza activity worldwide, including the emergence of potential pandemic strains of influenza virus.
- The DC DOH will, in general, follow the CDC guidelines for prevention and control.

Section 2

Pandemic Planning

I. Operational Levels – Pandemic Phases

The Pandemic Influenza Preparedness Plan provides a framework for the District of Columbia, DOH, and its supporting agencies to prepare for and respond to an influenza pandemic. The plan is based upon the pandemic phases determined by the CDC in collaboration with the World Health Organization (WHO). The phases range form early identification of a novel virus to resolution of pandemic cycling. These phases help identify the estimated impact of an influenza pandemic on the District of Columbia government, residents, workers, and visitors. Following these guidelines, the District's plan prescribes necessary activities and identifies responsible parties by pandemic phases. These declared and defined phases will help ensure a consistent and coordinated response by all responsible agencies and stakeholders in the event of an influenza pandemic event. The intent is for all activities listed in this document to be initiated during the assigned pandemic phase. Some activities will continue during subsequent phases.

Pandemic Phase	**Definition**
Novel Virus Alert	• Novel virus detected in one or more humans • Little or no immunity in the general population • Potential, but not inevitable precursor to a pandemic
Pandemic Alert	• Novel virus demonstrates sustained person-to-person transmission and causes multiple cases in the same geographic area
Pandemic Imminent	• Novel virus causing unusually high rates of morbidity and/or mortality in multiple, widespread geographic areas
Pandemic	• Further spread with involvement of multiple continents; formal declaration made
"Second Wave"	• Recrudescence of epidemic activity within several months following the initial wave of infection
Pandemic Over	• Cessation of successive pandemic "waves," accompanied by the return (in the US) of the more typical wintertime "epidemic" cycle

Pandemic Phase Chart

The World Health Organization (WHO) has defined phases of a pandemic to assist with planning and response activities. For purposes of consistency, comparability, and coordination of national, state, and local responses, identification and declaration of the following phases will be done at the national level.

WHO Pandemic Phase	Definition
Inter-Pandemic Period (WHO Phase 0, Preparedness level 0)	No indications of any new virus type have been reported. Influenza viruses antigenically related to those recently circulating among humans continue to evolve and cause disease.
Novel Virus Alert (WHO Phase 0, Preparedness level 1-2)	A novel influenza strain has been identified in at least one human. A substantial portion of the population has little or no antibody to the novel virus, but the ability of the virus to rapidly spread person-to-person and cause multiple outbreaks of disease remains questionable.
Pandemic Alert (WHO Phase 0, Preparedness level 3)	Human transmission of the new virus subtype has been confirmed through clear evidence of person-to-person spread in the general population, with at least one outbreak lasting over a minimum of a two-week period in one country.
Pandemic **(**WHO Phases 1-3)	The new virus subtype has been shown to cause several outbreaks in at least one country, and to have spread to other countries with consistent disease patterns indicating that serious morbidity and mortality is likely in at lest one segment of the population. This phase will continue influenza activity in initially affected regions has stopped or reversed while outbreaks of the new virus are still occurring elsewhere.
Second Wave (WHO Phase 4)	A second outbreak of disease within the same geographic area that occurs 3-9 months after the initial wave of disease.
Post Pandemic (WHO Phase 5)	Indices of influenza activity have returned to essentially normal inter-pandemic levels and immunity to the new virus subtype is widespread in the general population.

II. Pandemic Influenza: A High Priority for Planning

Several features set pandemic apart from other public health emergencies or community disasters:

- Influenza pandemics are inevitable but unpredictable and arrive with very little warning.
- Outbreaks are expected to occur simultaneously throughout much of the US, preventing shifts in human and material resources that usually occur in the response to other disasters.
    - Localities must be prepared to rely on their own resources to respond.
    - The effect of influenza on individual communities will be relatively prolonged (weeks to months) in comparison to other types of disasters.
- Because of the high degree of infectiousness of pandemic influenza, the number of persons affected will be high, and are estimated at
    - Up to 200 million persons infected
    - Between 38 million and 89 million clinically ill
    - Between 18 million and 42 million requiring outpatient care
    - Between 314,000 and 733,000 hospitalized
    - Between 89,000 and 207,000 deaths
- Health care workers and other first responders will be at higher risk of exposure and illness than the general population, further straining the health care system.
- Effective prevention and therapeutic measures, including vaccine and antiviral agents, will be in short supply, contributing to public concern.
- Widespread illness in the community will increase the likelihood of sudden and potentially significant shortages of personnel in other sectors who provide critical community services (military personnel, police, firemen, utility workers, transportation workers).

III. Federal and State Roles

A. Federal Roles

The federal government is responsible for nationwide coordination of the pandemic influenza response. Specific areas of responsibility include the following:

- Surveillance in the US and globally
- Epidemiological investigations in the US and globally
- Development and use of diagnostic laboratory tests and reagents
- Development of reference strains for vaccines
- Vaccine evaluation and licensure
- Determination of populations at highest risk and strategies for vaccination and antiviral use
- Assessment of measures to decrease transmission (such as travel restrictions, isolation, and quarantine)
- Deployment of federally purchased vaccine

- Deployment of antiviral agents that may be available as part of the Strategic National Stockpile
- Evaluation of the efficacy of response measures
- Evaluation of vaccine safety
- Deployment of the Commissioned Corps Readiness Force and Epidemic Intelligence Service officers
- Medical and public health communications

B. The District of Columbia's Role

The District of Columbia will be individually responsible for coordination of the pandemic influenza response within and between jurisdictions. Specific areas of response include the following:

- Identify public and private sector partners needed for effective planning and response
- Plan for key components of pandemic influenza preparedness plan: surveillance, distribution of vaccine and antivirals, and communications.
- Integrate pandemic influenza planning with other planning activities conducted under CDC and HRSA's bioterrorism preparedness cooperative agreements with states
- Coordinate with local areas to ensure development of local plans as called for by the state plan and provide resources, such as templates to assist in planning process
- Development of data management systems needed to implement components of the plan
- Assist local areas in exercising plans
- Coordination with adjoining jurisdictions

IV. The Planning Process

The first step in the planning process is to establish an "Executive Committee" to include the following:

- The Mayor's Office
- Director of Department of Health or Chief Medical Officer
- Chief Bureau of Epidemiology
- Director of Emergency Management Agency
- Director of Public Health Laboratory
- Public Health Information Officer
- Immunization Project Director
- General Counsel

The purpose of the Executive Committee in conjunction with the Emergency Health & Medical Services Administration (EHMSA) will be to:

- Assure integration of pandemic influenza planning activities with other relevant planning activities (such as bioterrorism preparedness)
- Oversee planning, response, recovery, and mitigation efforts
- Ensure that the jurisdiction's pandemic plan is developed, reviewed, exercised, and periodically revised.

The identified stakeholders with whom the plan will be developed will include:

- Communicable diseases personnel and infectious disease physicians
- District of Columbia Public Health Laboratory personnel
- Immunization program personnel
- Contract (private) laboratories which may process clinical specimens for influenza (as may be applicable)
- District of Columbia Primary Care Association (DCPCA) and the District of Columbia Hospital Association (DCHA)
- The District of Columbia Nurses Association (DCNA) and the Medical Society of the District of Columbia (MSDC)
- Pharmacist
- Community immunizers
- Representatives from the HIV/AIDS Administration and the Healthcare Regulatory Administration (HRA)

Additional groups will include:

- The American Red Cross
- Department of Human Services (DHS)
- Metropolitan Police Department (MPD)
- Funeral directors
- Veterans Administration Hospital and/or Walter Reed Army Medical Center
- Representatives of major public utilities (to ensure service during the pandemic) (PEPCO, WASA, Washington GAS)
- District of Columbia Public Schools (DCPCS)

V. Command and Control

The Director of the Department of Health (DOH) shall assume command for directing the response to the influenza pandemic, and DOH's Health Emergency Coordination Center (HECC) will be activated. At the point where resources outside the Department of Health are needed, or the basic infrastructure of the District is being affected as a result of the pandemic, the assistance of the Emergency Management Agency (EMA) shall be sought. Activation of the EMA's Emergency Operations Center (EOC) will be requested through the Director of EMA.

The emergency response system of the EMA shall be utilized to track missions, acquire resources, document costs, and coordinate the response activities among agencies and stakeholders. The general methods of operation shall be undertaken as provided in this plan and the District Response Plan (DRP). In responding to the pandemic, the Department of Health will have lead responsibility and the EMA will have support role.

If emergency powers of the District of Columbia are needed, the Emergency Management Agency in consultation with the Department of Health shall draft a Mayor's Executive Order declaring that a state of emergency exists and specifying the emergency powers that are necessary or appropriate to cope with the emergency. If it appears that significant expenditures will be required to respond to this emergency, the Director of the Department of Health may recommend, and the Mayor may request a presidential disaster declaration. If granted, this declaration will make federal funding available on a matching reimbursement basis.

In addition to public health, the general strategy of the plan is to protect the infrastructure so to ensure that the health and medical community, as well as government and business, will continue to function. This decision will require allocation and redirection of scarce resources toward those who are needed to maintain optimal functioning and health of society.

VI. Responsibilities

- The Department of Health will seek an Executive Order from the Mayor in order to activate resources for the pandemic response.
- The Department of Health will activate the Health Emergency Coordination (HECC) Center to facilitate the initial response to the influenza pandemic.
- The Department of Health will assume the role of Incident Command at the Emergency Operations Center that will be activated when resources outside the Department of Health are needed, or the basic infrastructure of the District is being affected as a result of the pandemic.
- The Department of Health will assist in the identification and provision of resources needed by the local health and medical systems to cope with the emergency.
- The Department of Health will identify and coordinate planning with key stakeholders through the Pandemic Influenza Coordinating Committee.
    - Members of the committee will be made up of representatives from Epidemiology, Immunization, Pharmacy, the Public Health Laboratory, DOH, the General Counsel, DOH Office of Communications and Community Relations, DC Hospital Association, DC Primary Care Association, Metropolitan Washington Council of Governments (COG), and the DC Emergency Management Agency (DCEMA). Other

key stakeholders for involvement in planning include the Income Maintenance Administration and Departments of Education and Corrections.

- The Public Health Laboratory will provide expertise in early identification of the presence and type of influenza.
- The Bureau of Epidemiology will conduct surveillance of influenza and other related disease activity and provide continuous information of its course and impact upon the population.
- The DOH Office of Communications and Community Relations will keep the public informed during all phases of the pandemic.
- The Department of Health will be responsible for developing plans to assess existing health care resources, coordinate responses with key stakeholders, and develop contingencies for anticipated shortages of essential services.
- The Department of Health will be responsible for promoting inter-pandemic routine influenza and pneumococcal vaccination to designated high-priority groups.

Activities by Pandemic Phase – Planning

Phase 0, level 0 – Interpandemic Phase

- Establish the Executive Committee
- Address each operational priority
- Ensure that a pandemic plan is developed either as an annex or supplement to the existing All Hazards Emergency Operations Plan, or a stand alone plan
- Identify crucial gaps in infrastructure and resources, laws and/or statutes that if not corrected in advance, may interfere with an effective response
- Develop and maintain lists; including contact information, of partners, resources, and facilities
- Develop a "marketing strategy" to inform key government officials, legislators, and various stakeholders of the need to address and resolve these gaps in advance of the pandemic
- Coordinate planning activities with bordering jurisdictions, new unique populations (i.e. new immigrant populations, and certain religious enclaves), in collaboration with federal authorities
- Review, exercise, and modify the plan as needed on a periodic basis

Phase 0, levels 1 and 1 – Novel influenza virus identified

- Meet with appropriate partners and stakeholders and review major elements of the plan and evaluate level of preparedness
- Modify the plan as needed on an urgent basis
- Coordinate with other states and federal agencies and bordering jurisdictions
- Confirm availability of facilities
- Document expenses of pandemic response

Phase 0, level 1 – Pandemic Alert human-to-human transmission confirmed

- Convene Executive Committee and meet with partners and stakeholders to review plan

- Activate enhanced surveillance and communications plan
- Begin vaccine and antiviral distribution
- Notify key government officials and legislators of the need for additional monetary resources (if not already available)
- Activate enhanced plans for operational priorities
- Notify key officials of need for additional resources, if necessary
- Document expenses of pandemic response

Phase 1, 2, and 3 – Confirmation of onset of a pandemic

- Convene Executive Committee and meet with partners and stakeholders and review and fully activate plan
- Monitor staffing needs
- Coordinate activities with neighboring jurisdictions
- Interface with appropriate counterparts at the national level
- Document expenses of pandemic response

VII. Concurrent Plans

As influenza related activities escalate, the District Response Plan (DRP) may be activated to support the efforts of DOH to control the spread of the disease and to treat its victims. The DRP may be activated as the only response plan or if warranted, additional response plans may be activated. Those plans may include the National Capitol Region (NCR) Plan, and/or the Federal Response Plan.

The NCR Plan is the result of agreements among the regional jurisdictions and the Federal Emergency Management Agency (FEMA) and the federal government to provide rapid response with an Emergency Response Team (ERT-NCR). The ERT-NCR would work to ensure close coordination and to expedite assistance. The Federal Response Plan, invoked after a Presidential Declaration of an Emergency, would permit wide-ranging comprehensive federal support for the control of the epidemic and the treatment of victims.

Planning Assumptions

- Many experts consider influenza pandemics to be inevitable… yet no one knows when the next one will occur.
- The widespread nature of pandemic influenza will require the coordinated efforts of a wide variety of organizations within the NCR to effectively control the spread of the disease and to reduce morbidity and mortality.
- An Influenza pandemic will severely tax and perhaps overwhelm healthcare resources at the local and regional levels, requiring extraordinary measures to contain the outbreak and provide medical care to victims of the disease.
- Outbreaks are expected to occur simultaneously throughout much of the US, preventing shifts in human and material resources that normally occur with other natural disasters.
- A Mayoral Declaration of a Public Health Emergency and implementation of isolation and/or quarantine procedures may be implemented to control the spread of the disease.
- The District Response Plan (DRP) is the overarching organizational structure for all emergency responses in the District, addressing all phases of emergency management. The DRP utilizes an all-hazards approach to unify and coordinate the response effort of all District agencies.
- The morbidity and mortality resulting from an influenza pandemic may far outweigh that caused by a bioterrorist attack, with an estimated 89,000-207,000 deaths, 314,000-734,000 hospitalizations, 18-42 million doctor visits, and 20-47 million additional cases who do not seek formal medical care.

In addition to the above assumptions, it is felt that there may be as little as one to six months warning before outbreaks begin in the US, if the pandemic emerges outside this country. The pandemic may occur during time periods not normally associated with our usual influenza season, and the pandemic strain may attack categories of people at different rates than that, which normally occur during the influenza seasons.

Section 3
Legal Issues

I. Authority

Several sections within the District of Columbia Statutes and Codes give powers and authorities for the Mayor and/or the Director of the Department of Health to perform certain acts to protect the health of District of Columbia residents. Sections of the DC Code and corresponding authority, which may be exercised during and Influenza Pandemic, are listed below.

The legal authorities for emergency responses in the District of Columbia include but may not be limited to the following:

- DC Code § 7-2205 Powers and duties
- DC Code § 7-2206 Limitation of liability
- DC Code § 7-2209 Interstate civil defense compact
- DC Code § 7-2305 Regulations
- DC Code § 7-2306 Duration of emergency executive order
- DC Code § 7-2307 Violation of emergency executive order
- DC Code § 7-2331 Emergency Management Assistance Act
- DC Code § 7-2332 Emergency Management Assistance Compact

While the legal authority exists for isolation and quarantine, legal precedence, judicial interpretation, common law, and political will all have a role to lay in the government's decision to establish and enforce levels of quarantine orders. The District of Columbia has the primary authority to invoke and enforce quarantine within its jurisdiction. The legal authorities for isolation and quarantine are:

- DC Code § 7-2304 Issuance of emergency executive order
- DC Code § 7-2304.01 Issuance of public health emergency executive order
- 42 USC Sec. 264 Regulations to control communicable diseases

Federal authorities have the authority to implement quarantine measures based on Section 361 of the 1944 Public health Service Act (41 USC 264) as amended by the Public Health Security and Bioterrorism Health Service Act of 2002.

§ 7-131 Regulations to prevent spread of communicable diseases [Formerly § 6-117]

A. The Mayor may upon the advice of the Commissioner of Public Health and pursuant to subchapter I of Chapter 5 of Title 2, issue rules to prevent and control the spread of communicable diseases, environmentally or occupationally related diseases, and other diseases or medical conditions that the Commissioner of Public Health has advised should be monitored for epidemiological or other public health reasons. These rules may include, but shall not necessarily be limited to:

1. A list of reportable diseases and conditions
2. Reporting procedures; and
3. Requirements and procedures for restriction of movement, isolation, and quarantine not inconsistent with this subchapter.

B. 1. Except as provided in paragraph two (2) of this subsection, the Commissioner of Public Health shall use the records incident to the case of a disease or medical condition reported under this subchapter for statistical and public health purposes only, and identifying information contained in these records shall be disclosed only when essential to safeguard the physical health of others. No person shall otherwise disclose or redisclose identifying information derived from these records unless:

1. The person reported gives his or her prior written permission; or
2. A court finds, upon clear and convincing evidence and after granting the person reported an opportunity to contest the disclosure, that disclosure:

a. Is essential to safeguard the physical health of others; or
b. Would afford evidence probative of guilt or innocence in a criminal prosecution.

3. The prohibitions set forth in paragraph one (1) of this subsection shall not apply to the exchange and use of information effected under Chapter 29 of Title 3, subchapter I of Chapter 13 of Title 4, and Chapter 23 of Title 16.

DC Code § 7-132 (2003) [Formerly 6-118]

§ 7-132 Definitions

For the purpose of this subchapter, the terms:

Affected with a communicable disease means a person infected with a communicable disease or exposed to a chemical or radiological agent who is capable of infecting others with the same disease or chemical or radiological agent if permitted to move freely in the general public, or a person who, while not infected with a communicable disease or exposed to a chemical or radiological agent, is a carrier of, or contaminated with, an infectious disease or chemical or radiological agent and capable of infecting others with the disease or chemical or radiological agent.

Communicable disease means any disease.

A. Denominated a reportable disease pursuant to § 7-131, including any illness due to an infectious agent or its toxic product that is transmitted.

i. Directly or indirectly to a well person from an infected person, animal, or ectoparasite; or
ii. Through the agency of an intermediate host or vector, or by exposure to chemical or radiological agents within the immediate environment.

B. Occurring as an outbreak of illness or toxic conditions, regardless of etiology, in an institution or other identifiable group of people.

DC Code § 7-133 (2003) [Formerly § 6-119]

§ 7-133 Persons believed to be carriers of communicable diseases – Order for removal

A. Whenever the Mayor, after consultation with the Director of the Department of Health, has probable cause to believe that a person is affected with a communicable disease or is a carrier of a communicable disease and that the person's presence in the general population is likely to cause death or seriously impair the health of others, the Mayor may, by written order, direct the removal of that person for the purpose of isolation, quarantine, or treatment. The order shall state a place of detention within the District of Columbia or outside of the District of Columbia; provided, that any place of detention outside the District of Columbia is under the supervision of the District of Columbia government.

B. The order shall be executed by a member of the Metropolitan Police Department or any designated employee of the District of Columbia. The person executing the order shall inform the person subject to the order of its contents and provide the person with a copy of the order.

C. Whenever the Mayor, after consultation with the Director of the Department of Health, has probable cause to believe that one or more groups of people at one or more locations are affected with a communicable disease and that the group's ability to move freely in the general population is likely to cause death or seriously impair the health of others, the Mayor may, by written order, direct the removal or detention of any such group for the purpose of isolation, quarantine, or treatment. The order shall state the bounds of the area subject to the order, and the person or persons executing the order shall inform, by reasonable means, all persons within the bounds of the detention area of the contents of the order and post a copy of the order in a conspicuous place in the bounds of the detention area.

DC Code § 7-134 (2003) [Formerly § 6-120]

§ 7-134 Same – Detention; expiration of order; continuation; hearing on detention; minors

A. A copy of the order provided for in § 7-133 shall be delivered to the person in charge of the any place or institution where a person or group of persons has been taken or detained, or if the place of detention is a residence, to any person of suitable age and discretion then present in the residence. The order shall constitute the authority for detention until the order expires. The order shall expire within 24 hours of its issuance unless a judge of the Superior Court of the District of Columbia continues it force and effect for a longer period. The judge shall continue the force and effect of an order if the judge finds that probable cause exists to believe that the detained person's presence in the general population is likely to cause death or seriously impair the health of others.

B. If a judge continues an order, any person or group of persons detained pursuant to the order may petition for a hearing to determine whether the person or group of persons is affected with a communicable disease, and, if the person or group of persons is affected with a communicable disease, whether release of the person or group of persons into the

general population is likely to cause death or seriously impair the health of others. The hearing shall take place as soon as practicable, but no later than 10 days after the court receives the petition.

DC Code § 7-135 (2003) [Formerly § 6-121)

§ 7-135 Same – Examination; diagnosis; detention for quarantine; discharge; public hearing

A. The Mayor shall cause to be conducted, by medical personnel designated by the Mayor, medical examinations of all detained persons to determine whether any detained person is affected with a communicable disease and immediately discharge any person who is not affected with a communicable disease. The diagnosis resulting from the examination shall be in writing and signed by the examining physician. A copy of the signed diagnosis shall be retained by any person in charge of the place or institution of detention, or, if the place of detention is a residence, by any person of suitable age and discretion who resides there. A copy of the signed diagnosis also shall be given to the detained person for whom the diagnosis was made. Another copy of the signed diagnosis shall be transmitted to the appropriate health official as designated by the Mayor.

B. A person who has been diagnosed as being affected with a communicable disease may be detained for a long as necessary to protect the public health. A person detained pursuant to this subsection may at any time petition the Superior Court of the District of Columbia for a discharge hearing. A person detained pursuant to this subsection who chooses to petition the Superior Court of the District of Columbia for a discharge hearing shall be provided with counsel if the person detained cannot afford counsel.

DC Code § 7-136 (2003) [Formerly 6-122]

§ 7-136 Same -- Leaving detention without discharge

It shall be unlawful for a person detained in a place or institution pursuant to an order of the Mayor to leave said place or institution unless discharged in the manner provided in § 7-134 or § 7-135.

DC Code § 7-137 (2003) [Formerly 6-123]

§ 7-137 Same – Arrest

A. In aid of the powers vested in the Mayor to cause the removal to and detention in a place or institution of a person who is affected or is believed, upon probable cause, to be affected with any communicable disease or is or is believed, upon probable cause, to be a carrier of communicable diseases as provided in this subchapter, the Superior Court of the District of Columbia, or any judge thereof, is authorized to issue a warrant for the arrest of such person and his removal to a place or institution as defined in § 7-133, which warrant shall be directed to the Chief of Police. When such person has been removed to such place or institution under authority of a warrant issued pursuant to this

section, such person shall not be discharged from such place or institution except in the manner provided in § 7-135.

B. No such warrant of arrest and removal shall be issued except upon probable cause supported by affidavit or affidavits particularly describing the person to be taken, which said affidavit or affidavits shall set forth the facts tending to establish the grounds of the application or probable cause for believing that they exist.

C. A warrant may in all cases be served by the Chief of Police or by any officer or member of the Metropolitan Police, but by no other person, except in aid of the officer on his requiring it, he being present and acting in its execution.

D. The officer may break open any outer or inner door or window of a house, or any part of a house, or anything therein, to execute the warrant, if, after notice of his authority and purpose, he is refused admittance.

E. A warrant must be returned to the Court within 10 days after its date; after the expiration of this time the warrant, unless executed, is void.

F. It shall be the duty of the said Court to maintain and keep records of all warrants issued and the returns thereon.

DC Code § 7-138 (2003) [Formerly 6-124]

§7-138 Access to building for inspection

The Mayor may, without fee or hindrance, enter, examine, and inspect all vessels, premises, grounds, structures, buildings, and every part thereof in the District of Columbia for the purpose of carrying out the provisions of this subchapter and the rules and regulations issued hereunder. The owner or his agent or representative and the lessee or occupant of any vessel, premises, grounds, structure, or building, or part thereof, and every person having the care and management thereof shall at all times when required by any such officer or employee give them free access thereto and refusal so to do shall be punishable as a violation of this subchapter.

DC Code § 7-139 (2003) [Formerly 6-125]

§ 7-139 Interference unlawful

It shall be unlawful for any person knowingly to obstruct, resist, oppose, or interfere with any person performing any duty or function under the authority of this subchapter or any rule or regulation promulgated there under.

DC Code § 7-140 (2003) [Formerly 6-126]

§ 7-140 violation of §7-136, § 7-138, §7-139, or rules or regulations promulgated there under

Any person who willfully violates § 7-136, § 7-138, or § 7-139 or who willfully discloses, receives, uses, or permits the use of information in violation of § 7-131 (b) shall be guilty of a misdemeanor and, upon conviction, subject to a fine not exceeding $5000, imprisonment for not more than 90 days, or both. Any person who willfully violates any rule or regulation issued pursuant to this subchapter shall be guilty of a misdemeanor and, upon conviction, subject to a fine not exceeding $1000, imprisonment for not more than 30 days, or both. All prosecutions for violations of § 7-136, § 7-138 or § 7-139 or the rules and regulations issued pursuant to this subchapter shall be in the Criminal Division of the Superior Court of the District of Columbia, in the name of the District of Columbia upon information filed by the Corporation Counsel of District of Columbia or any of his assistants. The Court may impose conditions upon any person found guilty under the aforesaid provisions and so long as such person shall comply therewith with the satisfaction of the Court the imposition or execution of sentence may be suspended for such period as the Court may direct; and the Court may at or before the expiration of such period vacate such sentence or cause it to be executed. Conditions thus imposed by the Court may include submission to medical and mental examination, diagnosis, and treatment by proper public health and welfare authorities or by any licensed physician approved by the Court, and such other terms and conditions as the Court may deem best for the protection of the community and the punishment, control, and rehabilitation of the defendant.

DC Code § 7-141 (2003) [Formerly § 6-127]

§ 7-141 Exemption for persons relying on spiritual means to cure disease

With respect to all persons who, either on behalf of themselves or their minor children or wards, rely in good faith upon spiritual means or prayer in the free exercise of religion to prevent or cure disease, nothing in this subchapter or any rule or regulation issued pursuant to this subchapter shall have the effect of requiring or giving any health officer or other person the right to compel any such person, minor child, or ward to go to or be confined in a hospital or other medical institution unless no other place for quarantine of such person, minor child, or ward can be secured nor to compel any such person, minor child, or ward to submit to any medical treatment.

Title 22 – Public Health and Medicine
Chapter 2 – Communicable and Reportable Diseases

CDCR 22-200 (2003)

22-200 General Provisions

200.1 The purpose of this chapter is to prevent and control the spread of communicable diseases.

200.2 This chapter shall be applicable to all cases or suspected cases, contacts or carriers of the communicable diseases denominated in this chapter insofar as reporting, restriction of movement, isolation, or **quarantine** are concerned.

200.3 This chapter may be supplemented by other regulations applicable to special situations involving the employment of persons in certain institutions, industries, and establishments, or the management of certain patients in institutions or establishments.

200.4 Civil fines, penalties, and fees may be imposed as alternative sanctions for any infraction of the provisions of this chapter pursuant to titles I-III of the Department of Consumer and Regulatory Affairs Civil Infractions Act of 1985. Adjudication of any infraction of this chapter shall be pursuant of titles I-III of the Department of Consumer and Regulatory Affairs Civil Infractions Act of 1985.

200.5 Any person required by this chapter to make a written report of a case of Tuberculosis shall submit the report to the Director in a sealed envelope marked "Confidential."

Title 22 – Public Health and Medicine
Chapter 2 – Communicable and Reportable Diseases

CDCR 22-201 (2003)

22-201 – Communicable Diseases

201.1.1 The following diseases shall be considered communicable diseases and shall be reported by telephone to the Director within two (2) hours of provisional diagnosis, or the appearance of suspicious symptoms:

(a) Animal bites
(b) Anthrax
(c) Botulism
(d) Cholera
(e) Diarrhea of the newborn, infectious
(f) Diphtheria
(g) Food borne disease
(h) Meningococcal infections
(i) Plague
(j) Rabies of man and animal
(k) Severe Acute Respiratory Syndrome (SARS)
(l) Smallpox
(m) Staphylococcal infections acquired in hospitals and in newborns
(n) Streptococcal infections of the newborn
(o) Typhus Fever
(p) Yellow Fever, and
(q) An unusual occurrence of any disease

201.2 The telephone report required by § 201.1 shall be confirmed in writing within twenty-four (24) hours in the manner indicated in § 200 of chapter 2 of this title.

201.3 The following diseases shall be considered communicable diseases and shall be reported by telephone to the Director within twenty-four (24) hours of provisional diagnosis, or the appearance of suspicious symptoms:

(a) Aseptic Meningitis Syndrome
(b) Cryptcoccosis
(c) Dengue Fever
(d) Leprosy
(e) Poliomyelitis
(f) Psittacosis
(g) Relapsing fever, louse borne, and
(h) Salmonella infections, including Typhoid Fever and Paratyphoids

201.4 The telephone report required by § 201.3 shall be confirmed in writing within forty-eight (48) hours of diagnosis in the manner indicated in § 200 of chapter 2 of this title.

201.4.1 The following diseases shall be considered communicable diseases and shall be reported in writing within forty-eight (48) hours of diagnosis or the appearance of suspicious symptoms in the manner indicated in § 200 of chapter 2 of this title:

(a) Human Immunodeficiency Virus (HIV) infection
(b) Amebiasis
(c) Brucellosis
(d) Dysentery, bacillary
(e) Encephalitis
(f) German Measles
(g) Glanders
(h) Hepatitis, infectious and serum
(i) Leptospirosis
(j) Malaria
(k) Rheumatic fever
(l) Ringworm of the scalp
(m) Rocky Mountain Spotted Fever
(n) Streptococcal infections, hemolytic
(o) Tetanus
(p) Trachoma
(q) Trichinosis
(r) Tuberculosis
(s) Tularemia
(t) Venereal diseases, including Chancroid, Gonorrhea, Granuloma Inguinale, Lymphogranuloma venerum, and Syphillis, and
(u) Whooping Cough

201.6 The following diseases and any other communicable diseases occurring as an outbreak of illness or toxic conditions, regardless of etiology, in an institution or other identifiable group of people shall be considered communicable diseases, but only when they occur in unusual numbers:

(a) Chickenpox
(b) Enterobiasis (pinworm)
(c) Glandular fever, infectious
(d) Histoplasmosis
(e) Impetigo Contagiosa
(f) Influenza
(g) Kerato-Conjunctivitis
(h) Mumps
(i) Pediculosis
(j) Pneumonia, and
(k) Scabies

201.7 The number of cases defined as a communicable disease in § 201.6 shall be reported by telephone to the Director within twenty-four (24) hours of diagnosis or the appearance of suspicious symptoms.

201.8 The telephone report required in § 201.7 shall be confirmed in writing, if required by the Director, in the manner required by the Director.

Title 22 – Public Health and Medicine
Chapter 2 – Communicable and Reportable Diseases
CDCR 22-202 (2003)

22-202 – Reporting Occurrences

202.1.1 The physician, veterinarian, or other person in charge of a communicable disease case shall report the case to the Director within the period of time required and in the manner prescribed in § 200 of chapter 2 of this title.

202.2 In the report required in § 202.1, the physician, veterinarian, or other person in charge of the case shall include a statement of the person's instructions concerning isolation, restriction of movement, and quarantine; Provided, that the statement may be limited to stating that the instructions were in accordance with the provisions of this chapter and with "Control of Communicable Disease in Man," Ninth Edition, 1960, published by the American Public Health Association; or if not, the instructions shall be set forth in detail.

202.3 A physician, veterinarian, or other person having information of a carrier or contact shall report that information to the Director.

202.4 Each infected adult person, and each parent, guardian, or person in charge of an infected person or animal shall be advised by the physician, veterinarian, or

other person in charge, of the applicable requirements for isolation, restriction of movement, and quarantine.

202.5 The physician or other person in charge of a communicable disease case involving a human being shall advise each infected adult person and parent, guardian, or other individual having responsibility for isolation and quarantine.

202.6 The veterinarian or other person in charge of a communicable disease case involving an infected animal shall advise the individual having responsibility for the care of the animal of the applicable requirements for isolation and quarantine.

202.7 The control and management of any carrier, contact, or infected person or animal shall be in accordance with good medical and public health practice.

202.8 Meeting the requirements of this section and observance of the provisions of "Control of Communicable Diseases in Man," Ninth Edition, 1960, published by the American Public Health Association, shall be prima facie evidence that the control and management of any carrier, contact, or infected person or animal has been in accordance with good medical and public health practice.

202.9 When reporting to the Department by telephone, the following information shall be furnished:

(a) Location of the case
(b) The patient's name, age, sex, home address, and telephone number
(c) Name of physician or other person in charge;
(d) Name of the communicable disease or name of suspected disease;
(e) Time of onset, and
(f) Identity of person making the telephone report.

202.10 Any physician treating or caring for a person with a communicable disease shall report immediately the name, address, and other relevant information to the Director under the following circumstances:

(a) When the person is delinquent in treatment
(b) When the person violates isolation or quarantine, or
(c) When there is any change of location of the case

202.11 When making a written report of a communicable disease or when confirming a telephone report in writing, the following information shall be furnished:

(a) Location of the case
(b) Patient's name, home address, telephone number, age, sex, color, and school or place of occupation
(c) Name of physician or other person in charge;
(d) Name of laboratory;
(e) Diagnosis of disease;

(f) Time of onset;
(g) Name of hospital, if admitted, and time of admission; and
(h) Other pertinent information.

202.12 If there is any change of location of the case, a report of the change shall be made to the Director in writing within twenty-four (24) hours of the change.

Title 22 – Public Health and Medicine
Chapter 2 - Communicable and Reportable Diseases

CDCR 22-210 (2003)

22-210 – Investigations and Enforcement

210.1 Upon receiving a report of the existence of a case or suspected case of a communicable disease, or of a communicable disease contact or carrier, the Director shall make any investigation that he or she deems necessary for the purpose of determining the source of infection and of determining if the proper management and control measures are in effect.

210.2 In order to make an investigation under this section, the Director may enter upon and inspect any public or private property in the District.

210.3 Where the Director has probable cause to believe that sectors of a communicable disease or sources of a communicable disease have been identified, the Director shall cause to be instituted whatever preventive measures as the Director may deem necessary to eradicate immediately the vectors and sources of the communicable disease.

210.4 Any person having or suspected of having a communicable disease, or any person who is suspected of being a communicable disease contact or carrier, shall, when directed by the Director, submit to an examination for the purpose of determining the existence of a communicable disease.

210.5 A person suspected of having a communicable disease, or a person who is suspected of being a communicable disease contact or carrier, shall submit specimens or permit the obtaining of authentic specimens of body secretions, excretions, body fluids, and discharges for laboratory examinations, when required by the Director. These specimens shall be authenticated, when required by the Director.

210.6 The Director may authorize or order a placard to be posted on the premises occupied by any person affected with a communicable disease.

210.7 No placard authorized or ordered by the Director to be posted shall be mutilated, defaced, obliterated, concealed, or removed, except by authorization of the Director.

210.8 The Director shall issue a Removal and Detention Order and take whatever further proceedings as may be required by D.C. Code, §§ 6-117 through 6-130, whenever the Director has probable cause to believe that any person is affected with, or is a carrier of, a communicable disease, and whenever the Director has probable cause to believe that that person is likely to be dangerous to the life or health of any other person because of the following reasons:

(a) Improper facilities or the lack of facilities for isolation, or
(b) That by reason of the person's non-cooperation or carelessness, including but not restricted to his or her refusal to submit to examination or refusal to be properly treated or cared for, the person is likely to be a danger to public health.

210.9 Each infected person, contact, or carrier shall comply with the instructions given him or her by the physician or other person responsible for the control of a case of communicable disease.

210.10 Each parent, guardian, or person in charge of an infected person or infected animal, carrier, or contact shall comply with instructions given by the physician, veterinarian, or other person in charge of the case concerning the control of the infected person or infected animal, carrier, or contact.

Title 22 – Public Health and Medicine
Chapter 2 – Communicable and Reportable Diseases

CDCR 22-212 (2003)

22-212 – Cleansing of Premises

212.1.1 Upon release from isolation, removal to a hospital, or any other change of location of any person affected with diphtheria, smallpox, tuberculosis, or any salmonella infection, the room or rooms that have been occupied by the person shall be cleansed, disinfected, or renovated in a manner prescribed and approved by the Director.

212.1.2 The Director may require whatever cleansing, disinfection, or renovation as he or she determines is necessary to protect the public health in connection with any case of communicable disease.

212.3 No person shall occupy a room formerly occupied by a person affected by a communicable disease until after the terminal cleansing as prescribed by this section.

Title 22 – Public Health and Medicine
Chapter 22 – Communicable and Reportable Diseases

CDCR 22-213 (2003)

22-213 – Persons Affected by Communicable Diseases

213.1 No person who is affected by, or believed by the Director upon probable cause to be affected by, a communicable disease in a communicable form; and no person who is, or is believed by the Director upon probable cause to be, a carrier of a communicable disease; shall actively engage in any occupation in which the person is likely to be dangerous to the lives or health of other persons.

213.2 No operating proprietor or manager of any business shall permit any person who is, or is believed by the Director upon probable cause to be, a carrier of a communicable disease, to engage or continue to be engaged in any occupation in which the person is likely to be dangerous to the lives or health of other persons.

213.3 Except when specifically authorized otherwise by the Director, no person affected with chickenpox, diphtheria, measles, mumps, meningococcal meningitis, poliomyelitis, smallpox, or whooping cough shall ride or be transported during the communicable period of his or her disease in any of the following common carriers:

(a) Airplane
(b) Railway train
(c) Streetcar
(d) Bus
(e) Taxicab, or
(f) Any other carrier provided for public transportation.

Title 22 – Public Health and Medicine
CHAPTER 2 – Communicable and Reportable Diseases

CDCR 22-214 (2003)

22-214 – Deaths of Affected Persons

214.1 In cases of death from cholera, anthrax, diphtheria plague (bubonic and pneumonic), smallpox, or louse-borne typhus fever, the physician issuing the certificate of death shall give immediate notice by telephone of the death to the Director.

214.2 The body of a person who died from a disease listed in this section shall not be moved from the place of death except after issuance of a permit by the Director, as required under this title.

214.3 Prior to being transported from the place of death to a licensed undertaker's establishment, the body of a person who died of a disease listed in this section shall have all of its orifices filled with absorbent cotton, and shall be wrapped in a

sheet saturated with a 1:500 solution of bichloride of mercury or other equally effective germicidal agent.

214.4 Within twelve (12) hours after transportation of a body of a person who died of a disease listed in this section to a licensed undertaker's establishment, the body shall be treated by one (1) of the following methods:

(a) Embalmed arterially and placed in a casket, which shall be sealed permanently, or
(b) Cremated

214.5 A public funeral service for a person who has died of any of the diseases listed in this section shall not be held in the presence of the body unless the body has been embalmed and placed in a sealed casket.

214.6 Quarantined persons shall not attend a public funeral service; but may, at the discretion of the Director, be taken to places of burial provided they do not mingle with the nonquarantined persons present.

Title 22 – Public Health and Medicine
CHAPTER 22 – Categories of Hospital Services

CDCR 22-2201 (2003)

22-2201 – Communicable Disease Service

2201.1 Each hospital shall provide sufficient rooms, suitably equipped for use in the **isolation** of patients suspected of or ill with infectious conditions, which are adequate for the care of patients for which the hospital undertakes to provide medical care.

2201.2 The hospital shall establish and follow procedures for the care of patients, regulation of visitors, and the use and proper cleanliness of supplies and equipment, which meet the requirements of Chapter 2 of this title.

2201.3 As a minimum requirement, each patient room used for **isolation** shall have hand-washing facilities.

2201.3.1 Facilities that are suitable for sterilization of supplies and equipment used for **isolation** of patients shall be readily available.

Title 22 – Public Health and Medicine
CHAPTER 2- Communicable and Reportable Diseases

CDCR 22-299 (2003)

22-299 - Definitions

299.1.1 For the purposes of this chapter, each of the following terms shall have the meaning ascribed to it:

Act – the Act approved August 11, 1939 (53 Stat. 1408 ch. 691), as amended by the Act approved August 8, 1946, (60 Stat. 919, ch. 871), D.C. Code, §§ 6-117 through 6-130).

Cancer – any malignant disease that is listed in the 9th Edition of the "International Classification of Disease-Oncology" published by the World Health Organization, except benign neoplasms and basal cell and squamous cell carcinoma of the skin, and each form of in situ carcinoma of the cervix uteri including codes from the International Classification of Disease, Ninth Revision, Clinical Modification (ICD-9-CM) and the International Classification of Disease for Oncology, Second Edition (ICD-O-2).

Carrier - a person or animal harboring in his or her or its body the specific infectious agent of a communicable disease without manifest symptoms and being a potential source or reservoir of infection for man.

Cleansing - the removal of infectious agents and the organic materials on which or in which infectious agents may find favorable conditions for prolonging life and virulence. Cleansing is accomplished by washing or scrubbing with hot water and a suitable detergent, by thorough airing and drying, and by exposure to sunlight.

Commission - the Commission of Public Health, Department of Human Services.

Commissioner - the Commissioner of Public Health, Commission of Public Health, Department of Human Services.

Communicable disease - any disease denominated a communicable disease, including without limitation any illness due to an infectious agent or its toxic product, which is transmitted directly or indirectly to a well person from an infected person, animal, or ectoparasite; or any illness due to an infectious agent or its toxic product which is transmitted through the agency of an intermediate host, vector, or by exposure within the immediate environment. Communicable disease also shall mean any disease occurring as an outbreak of illness or toxic conditions, regardless of etiology in an institution or other identifiable group of people.

Contact - any person or animal who has associated with a person or animal infected by a communicable disease, or with an object contaminated by the infectious agent of a communicable disease, in a manner that would provide the person or animal the opportunity of acquiring the disease.

Department - District of Columbia Department of Health

Director - Director, District of Columbia Department of Health

District of Columbia Central Registrar - a person who is certified in cancer registry operations as a Certified Tumor Registrar and who is designated by the Department to obtain reports from health care facilities and health care providers for the District of Columbia Central Cancer Registry.

Disinfection - the process of destroying the vitality of a disease-producing agent outside the body of a person or animal.

Health Care Facility - a clinic, freestanding ambulatory care facility, freestanding laboratory, hospital, nursing home, or therapeutic radiological center.

Health Care Provider - a health maintenance organization or physician.

Infectious Agent - a living microorganism (commonly called bacterium, germ, microbe, or organism) or virus capable of causing a communicable disease.

Isolation - the separation of infected persons or animals, or persons or animals suspected of being infected, from other persons or animals for the period of communicability of the particular communicable disease. The separation shall be in places and under conditions that will prevent the direct or indirect conveyance of the infectious agent from the infected persons or animals to susceptible persons or animals, or to persons or animals that may spread the infectious agent to others.

Mayor - the Mayor of the District of Columbia, or the Mayor's designated agent.

Outbreak - the occurrence of an illness of public health importance, when the occurrence is in unusual numbers or under unusual circumstances.

Quarantine - the limitation of freedom of movement of well persons or animals that have been exposed to, or are suspected of having been exposed to, a communicable disease for a period of time equal to the longest usual incubation period of the disease in a manner that will prevent effective contact with those who are not exposed.

- **Quarantine** also shall mean the necessary restriction of the use of any premises suspected of contamination by communicable disease agents.

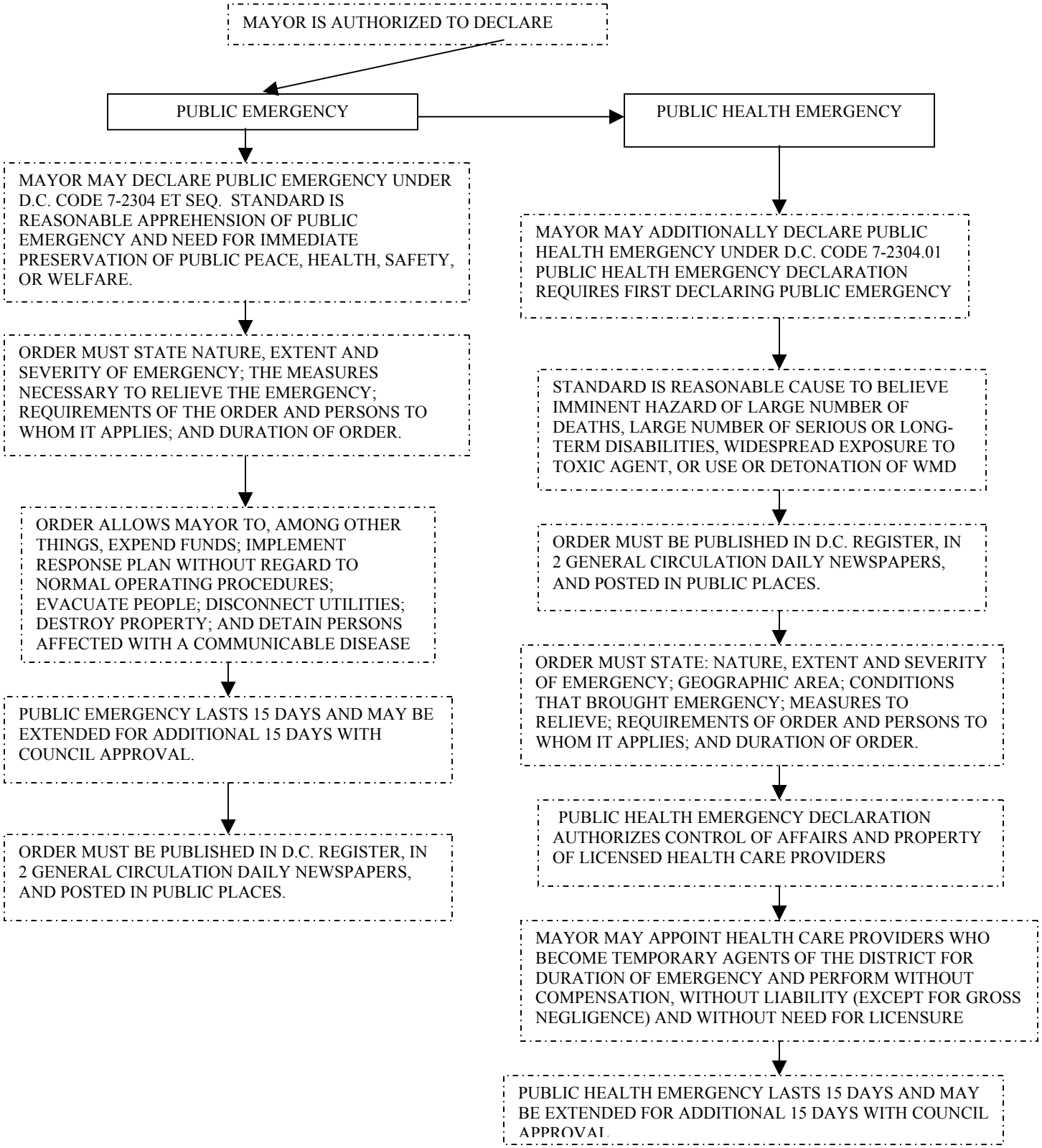
Restriction of movement - the limitation of freedom of movement of an infected person or animal, or a person or animal suspected of being infected, in the person's or animal's association with others not known to be immune to the communicable disease with which the person or animal is infected, or suspected of being infected.

Susceptible - a person or animal presumably not possessing resistance against a particular infectious agent

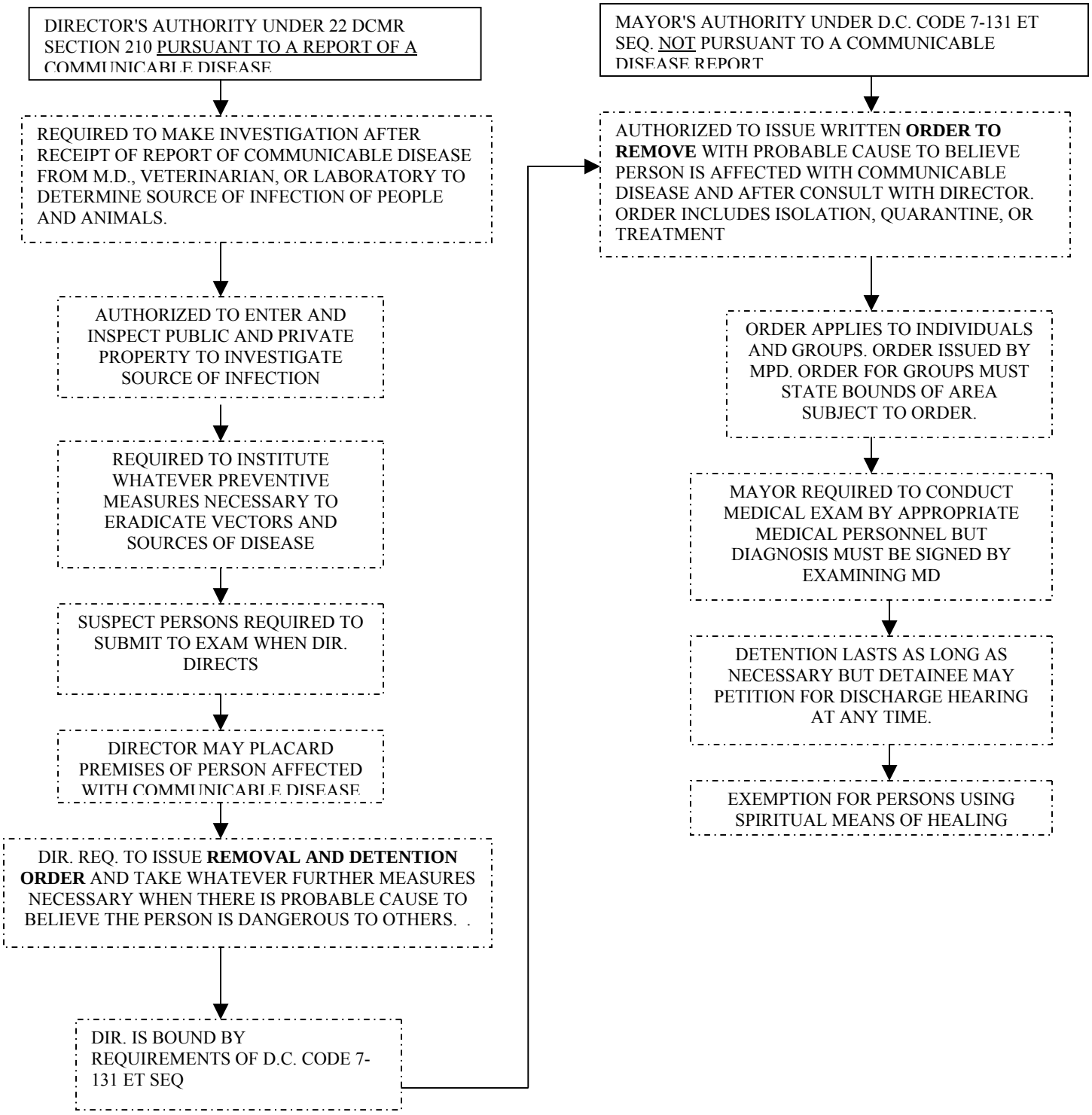
Suspect - a person or animal whose medical history, symptoms, or laboratory findings suggest that the person or animal may have or may be developing some communicable disease.

Turtle - any animal of the order Testudinata (Chelonia), class Reptilia, having a carapace length of less than four inches (4"), including those commonly known as turtles, tortoises, and terrapins, except marine species (families Dermochildae and Cheloniidae).

EMERGENCY PROCEDURES
ISOLATION, TREATMENT, RESTRICTION OF MOVEMENT, AND QUARANTINE



NON-EMERGENCY PROCEDURES
ISOLATION, TREATMENT, RESTRICTION OF MOVEMENT, AND QUARANTINE



Section 4

Vaccination & Antivirals

Vaccination Clinics

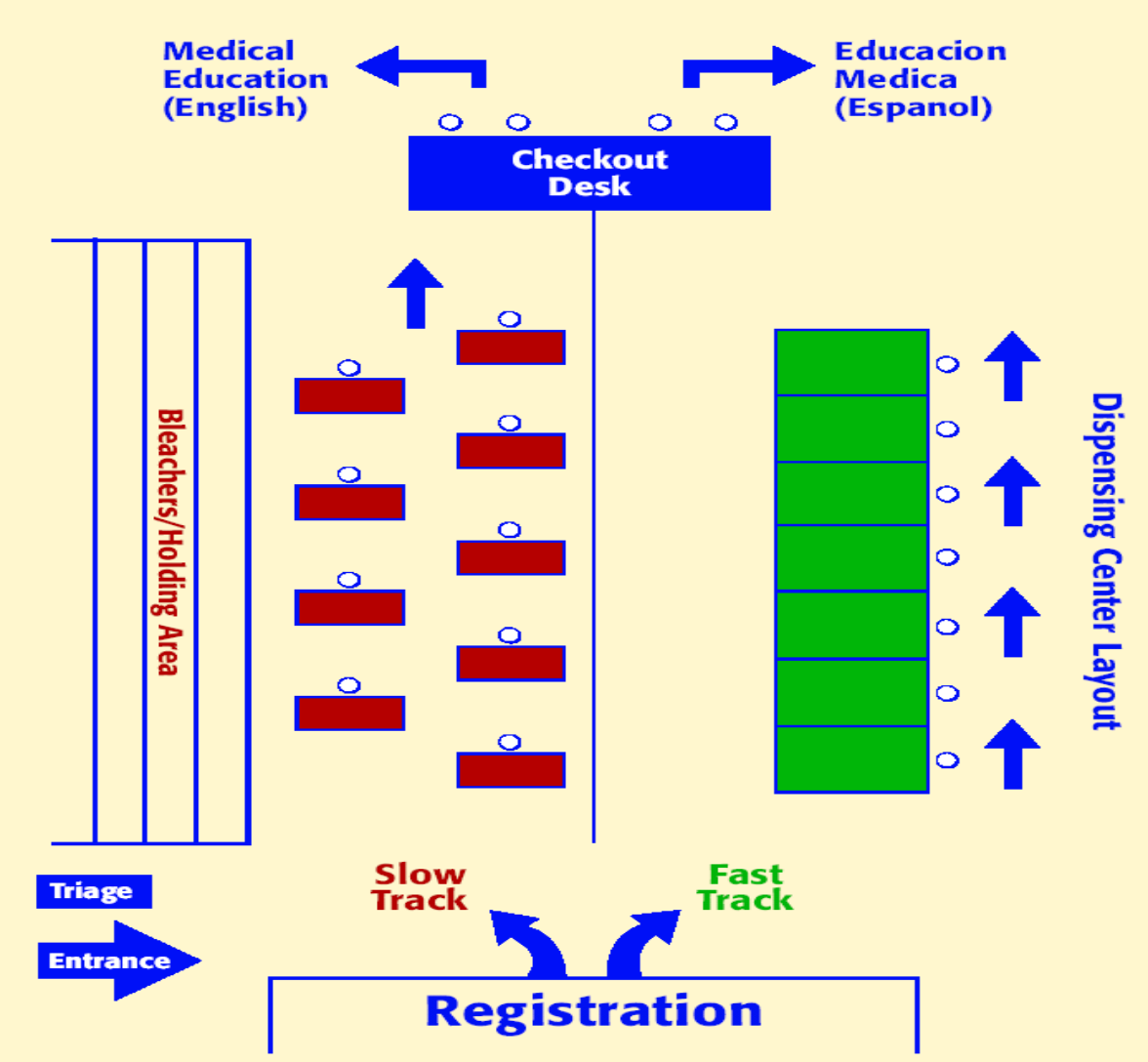
Vaccine Clinic Operations

Command and Control

The following diagram depicts a dispensing center layout.

The red track (Slow track) dispensing is configured with eight or more separate tables so that clients would have privacy when discussing their medical histories with the pharmacists and other health care professionals.

Those who do not need additional counseling will be directed to green track (Fast track), which can be configured with six or more servers along a set of long tables.



Elements of Throughput At A Dispensing Operation

The Point of Distribution (POD) Centers will be set up to accommodate an efficient flow of people through the site. The initial step in the dispensing process is triage, where symptomatic patients will be separated and redirected to a health care facility before entering the building. There are other points during the process where patients could be re-directed for a more comprehensive evaluation and treatment at another location. Separate paths may be established for non-English-speaking people, persons with disabilities, and those requiring additional counseling.

There are five main stations in the dispensing process. The process can be collapsed, expanded or merged as necessary to increase the flow of people through the dispensing site. Each station's information collection process can be shortened if necessary to increase flow through the site.

Triage

- EMT personnel will do an initial assessment and separate the symptomatic and asymptomatic patients
- RN or MD will perform a basic health exam on the symptomatic patients and determine whether they need to be transported to a treatment facility
- EMS personnel will transport patients via ambulance or Ambu Bus to a treatment facility
- People will be directed to the next station once they are cleared through Triage

Registration

- Signs will be posted to direct people to the registration area
- Security guards will be posted for crowd control
- Patients fill out medical evaluation form
- Administrative or health care personnel will create database
- General information /educational material will be handed out
- People will be directed to the next station

Medical education*

- Educators can run several concurrent sessions if necessary to facilitate throughput
- General information is presented and questions are answered
- Security guards will be posted for crowd control. People will be directed to the next station

***This station may be eliminated from the throughput process to increase throughput. If this session is eliminated, educational material will be given during registration and the patients will have the opportunity to ask further questions during the check out.**

Dispensing Area

- This area will be divided into two tracks: green track (fast track) and red track (slow track)
- Fast track is designed to receive patient with no medical problems and contraindications to the medications being dispensed
- Slow track is designed to receive patients that are picking up for family members, special needs population, and patients with contraindications
- Medication will be handed out along with information sheets
- Separate lines will be established for those with special needs and family

Check out

- Staff will review all documentation
- Signs will be posted to direct people back to parking lot
- Stations will be set up to offer private or group counseling

Critical Core Functions At A Dispensing Operation

A separate command and operations area will be established for managerial staff overseeing the critical core functions of the dispensing operation.

Dispensing Center Manger

The dispensing center manager will be responsible for overseeing the clinical operation. The responsibilities of the Dispensing Center Manager include:

- Overseeing all clinic functions/problem solving.
- Overseeing policy regarding triage
- Overseeing counseling
- Set-up of facilities
- Overseeing protocols for patient care and other functions of the POD center
- Ensuring that all clinic staff members complete the training process specific for their job
- Ensuring all clinic staff receive instruction regarding confidentiality
- Ensuring that incident reports are filled out

Transportation Manager

The primary method of transporting medication and other materials to the PODs will be the DC Department of Transportation (DDOT) trucks and vehicle. Helicopter transportation will be the alternate method of transportation in the event that traffic or other situations that prohibit the use of ground transportation.
The Transportation Manager's responsibilities include:

- Tracking and monitoring all vehicles and shipments (this requires communications with the vehicle operators)

- Coordinating with emergency management agency, and department of transportation operations to delineate routes
- Ensuring that all vehicles are fueled and maintained
- Coordinating with the Metropolitan Police Department (MPD) so that roads can be cleared or vehicles can be escorted

Communications Manager

Communications is an essential element in ensuring an effective emergency response. The communications manager will be responsible for overall communications among key personnel at the dispensing center as well as other involved agencies throughout the incident.

The Communications Manager's responsibilities include:

- Ensuring the staff at the dispensing centers and the vehicle operators are able to communicate with each other
- Arranging for equipment maintenance and repair
- Overseeing personnel who are designated at each delivery point to relay information back to the response headquarters
- Alerting staff of the emergency and recalling them to their designated sites

The main communications methods are listed below:

- Existing phone /fax lines
- Cell phones
- SAT phones
- 2-way and 800 mhz radios
- Internet
- E-mail
- 2-way pagers
- Wireless e-mail capability

Security

A large-scale biological event in the District may produce many casualties, local antibiotic shortages, fear, panic and widespread demands for action. In this environment, arrival of the SNS will be news worthy and may draw citizens who will not wait patiently for the establishment of the neighborhood POD center. MPD is the lead agency for security at the dispensing centers. We included security guards that should be posted at specific stations. Total security staffing requirement for each POD Center will be determine by the Metropolitan Police Department. Other participating agencies and organizations include EMA, the DC Army National Guard and DC Protective Services.

Responsibilities of Security include:

- Perimeter protection

- Establishing and protecting helicopter landing Zone
- Crowd control
- Traffic control
- Protection of staff, material and equipment

For each Dispensing Center

- Risk assessment will be performed
- Personnel will be identified to perform security functions
- Security kits will be developed that include all of the equipment, supplies, and information necessary to carry out security functions
- A detailed security plan will be available

Point of Distribution Center (POD) Operational Kits

Each POD will be equipped with a dispensing site operations kit that will include items such as general information, direction and station identification signs (in several languages), office supplies, first aid equipment, and medication counting and assembly equipment.

Personnel Requirement at Each Point of Distribution Center

We estimate the following staff will be required at each site for a large-scale event (worst-case scenario). The staffing requirement can be expanded, collapsed or merged, depending on the nature of the event.

Station	Description	Type of Staff	Number per shift
		Dispensing site manager	1
		Communications specialist	1-2
		Translator	5-10
		Logistic Officer	5
		IT Support	2
1 & 2	Registration/Triage	Medical Personnel	10
5	Data Entry	Administrative Personnel	10
1 & 2	Registration	*Security guards*	*2*
1	Triage (Initial)	EMTs – separate symptomatic	4
1 & 2	Triage	RN or MD to perform health exams	4
1	Triage	EMT/B – to transport sick patients	2-4
5	Medical Education	Educators	2-4
5	Counseling	Private counselors (MD, NP, PA,)	4-6
5	Counseling	Traffic control monitors	2
5	Counseling	*Security guards*	2
3	Dispensing	Traffic control monitors	3
3	Dispensing	Medical Personnel	10-20
4	Checkout	Traffic control monitors	2
4	Checkout	*Security guards*	*2*
		Total (excluding security)	**66- 89**

Immunization, Special Populations, Patient Tracking and Adverse Reactions

Vaccination Recipient Policy (Mass vaccination in the event of an outbreak)

The goal of mass vaccination is to reduce the "at risk" population in the event of an influenza pandemic by providing rapid voluntary vaccination of all District residents and designated personnel that will care for influenza cases and/or suspected cases (i.e. hospitals, fire/police, etc).

Influenza vaccine (Influenza vaccine)

Various issues concerning the influenza vaccine have been identified. These include:

1) Informed consent and vaccine information statement (VIS)
2) Separate vaccine clinics (VC) for vaccination and counseling of identified contacts of influenza cases
3) Triage to identify ill patients prior to entering VC
4) Medical screening for persons with contraindications, including plans to refer persons for rapid HIV and pregnancy testing if needed
5) Evaluation and treatment of adverse events in facilities separate from vaccine clinics
6) Special populations
7) Establishment of pre-designated sites or clinics for the evaluation of symptomatic individuals to rule out influenza. These should be separate from vaccinations clinics, but have the capability of giving vaccinations.
8) Hospital participation

Vaccination Guidelines and Restrictions

Contraindications and precautions related to the administration of the influenza vaccine will be handled according to the guidelines and recommendations from the Centers for Disease Control and Prevention (CDC).

Contraindications to Vaccination:

There are some people who should not be vaccinated. This includes:

- People who have a severe allergy to chicken eggs.
- People who have had a severe reaction to an influenza vaccination in the past.
- People who developed **Guillain-Barré syndrome** (GBS) within 6 weeks of getting an influenza vaccine previously.
- Children less than 6 months of age.
- People who are sick with a fever. (These people can get vaccinated once their symptoms lessen.)

Vaccination Administration

Who Should Get Vaccinated?

Anyone wanting to reduce his or her chances of getting the flu should get vaccinated. However, certain people should get vaccinated each year either because they are at high risk of having serious flu complications or because they are in close contact with someone who is at high risk for serious complications and they could make them sick. People who should get vaccinated each year are:

1) People at high risk for complications from the flu;

   - People 65 years and older
   - People who live in nursing homes and other long-term care facilities that house those with long-term illnesses
   - Adults and children 6 months and older with chronic heart or lung conditions, including asthma
   - Adults and children 6 months and older who needed regular medical care or were in a hospital during the previous year because of a metabolic disease (i.e. diabetes), chronic kidney disease, or weakened immune system (including immune system problems caused by medicines or by infection with human immunodeficiency virus [HIV/AIDS])
   - Children 6 months to 18 years of age who are on long-term aspirin therapy. (Children given aspirin while they have influenza are at risk of Reye syndrome)
   - Women who will be pregnant during the influenza season; and
   - All children 6 to 23 months of age

2) People 50 to 64 years of age (Nearly one-third of people 50 to 64 years of age in the United States have one or more medical conditions that place them at increased risk for serious complications from influenza.)
3) People who can transmit influenza to others at high risk for complications. (This means that if you have contact with anyone in a high-risk group (see listing above), you should get vaccinated. This includes health-care workers and parents or other close contacts of children 6 to 23 months of age and close contacts of seniors.)

Policies and protocols as recommended by the CDC will be followed, including:

- Persons who are licensed to administer vaccines in DC will administer vaccine
- Distribution of information to all (contacts and others)
- Post vaccination information and review

Ill persons with an Influenza Like Illness (ILI) (i.e. fever) will be taken out of mainstream VC flow prior to entering the VC and directed to an assessment area.

Reporting and handling of adverse events

The risk of serious complications following influenza vaccination is low, however, in a number of persons, influenza vaccination can result in adverse reactions. According to the CDC, the majority of these adverse reactions are mild to moderate and resolve on their own. Serious and life threatening reactions, though rare, may be fatal.

Special Populations

Certain populations, such as non-ambulatory, very young or elderly and the disabled, require non-traditional access to VC. Barriers that these populations might encounter in obtaining the influenza vaccine or medical implications will need to be explored.

Mobile clinics

- For non-transportable populations, such as retirement communities, nursing homes, prisons

Persons with disabilities

- Accessibility for persons with disabilities at clinics and transportation to clinics
- Wheelchairs at clinics to assist elderly who can't ambulate from station to station

Referral testing

- Counseling, medical screening and ability to refer for rapid testing all persons who may need for HIV and pregnancy (Immunocompromised persons may develop more severe reactions)

Pediatrics

- Each VC will need pediatric medical specialist

Hospital participation

- Hospitals and their staff are an integral component of a bioterrorism response plan. Their functions will include:

    - Treatment of severe adverse events
    - Training and education of staff
    - Provide specialist for consultation on adverse events
    - Develop protocols, in consultation with DOH, for isolation and evaluation of suspected cases
    - Occupational health units to monitor status of all staff that receive vaccine and report to DOH

Activities by Pandemic Phase – Vaccination

Phase 0, level 0 – Interpandemic Phase

- Enhance influenza vaccination coverage levels in traditional "high-risk" groups, particularly subgroups in which coverage levels are particularly low.

    - Persons younger than 65 years of age with chronic underlying medical Conditions. Increasing routine annual vaccination coverage levels in these groups will further reduce the annual toll of influenza and will facilitate access to these populations when the pandemic occurs.

- Enhance pneumococcal vaccination coverage levels in traditional "high-risk" groups to reduce the incidence and severity of secondary bacterial pneumonia.
- Define the process by which review and modification of the national recommendations for vaccine priority groups will occur.
- Consider state-specific modifications or refinements in priority groups, depending on local circumstances (i.e. special skill groups – nurses, first responders).
- Determine size of priority groups and develop a plan for vaccinating them (i.e. will hospitals vaccinate their workers; who will vaccinate those responsible for community safety).
- Develop a plan for providing influenza vaccine to priority groups in the event of severe or moderately severe vaccination shortages.

    - Consider the potential need to prioritize within priority groups.
    - Frontline healthcare workers will have to be defined.

- Develop a plan for mass vaccination of the general public once sufficient amounts of vaccine are available, including identification of vaccine administration personnel.

    - Elicit written commitments from agencies and institutions that plan to provide vaccinators.
    - Note that plans made for influenza post exposure vaccination clinics should be adapted.
    - Security issues should be taken into consideration.

- Ensure that appropriate legal authorities are in place that will allow for implementation of major elements of the proposed distribution plan.
- Ensure that contingency plans have been considered for emergency distribution of unlicensed vaccines using emergency IND (investigational new drug) provisions.

    - Such provisions call for strict inventory control and record keeping, along with completion of a signed consent form.

- Coordinate the proposed vaccine distribution plan with bordering jurisdictions, including counties, states, and unique populations in collaboration with federal authorities.

- Engage state health coordinator (and/or adverse events coordinator) in planning around monitoring and investigation of adverse events.

    - Other activities may include identifying pre-existing networks of neurologist that could serve as sentinels for serious adverse events such as Guillain-Barré Syndrome, and identifying immunization or communicable disease personnel with experience/training in vaccine safety principles and practices.

- Identify a data management system to track vaccine supply, distribution, and use and to track administration of two doses of vaccine (if recommended).
- Review, exercise, and modify vaccine distribution plans as needed on a periodic basis.

Phase 0, levels 1 and 2 – Novel influenza virus identified

- Meet with appropriate partners and stakeholders and review major elements of the vaccine distribution plan.
- Modify the plan as needed to account for updates, if any, on recommended target groups, projected vaccine supply, and human resources available.

Phase 0, level 3 – Pandemic Alert Human-to-human transmission confirmed

- Ensure that human resources and logistics are in place to begin vaccination, taking into account need for additional staff due to illness.
- Coordinate planned activities with bordering jurisdictions.
- Conduct training for relevant agencies and partner groups regarding vaccine delivery protocols and procedures.

Phase 1, 2, and 3 – Confirmation of onset of a Pandemic

- Fully activate the vaccination program, including distribution, administration, monitoring of vaccine distribution, and administration, and tracking of doses, appropriate storage and handling, and safety monitoring.
- Coordinate activities with bordering jurisdictions.

Antiviral Treatment

Antiviral drugs for influenza are an adjunct to influenza vaccine for controlling and preventing influenza. However, these agents are not a substitute for vaccination. Four licensed influenza antiviral agents are available in the United States: Amantadine, Rimantidine, Zanamivir, and Oseltamivir.

Recommendations for Using Antiviral Agents for Influenza

Amantadine and Rimantidine are chemically related antiviral drugs known as adamantanes with activity against influenza A viruses but not influenza B viruses. Amantadine was approved in 1966 for chemoprophylaxis of influenza A (H2N2) infection and was later approved in 1976 for

treatment and chemoprophylaxis of influenza type A virus infections among adults and children aged ≥1 year. Rimantadine was approved in 1993 for treatment and chemoprophylaxis of influenza A infection among adults and prophylaxis among children. Although Rimantadine is approved only for chemoprophylaxis of Influenza A infection among children, certain specialists in the management of influenza consider it appropriate for treatment of influenza A among children.

Zanamivir and Oseltamivir are chemically related antiviral drugs known as Neuraminidase Inhibitors that have activity against both influenza A and B viruses. Both Zanamivir and Oseltamivir were approved in 1999 for treating uncomplicated influenza infections. Zanamivir is approved for treating persons aged ≥7 years, and Oseltamivir is approved for treatment for persons aged ≥1 year. In 2000, Oseltamivir was approved for chemoprophylaxis of influenza among persons aged ≥13 years.

Indications for Use

Treatment

When administered within 2 days of illness onset to otherwise healthy adults, Amantadine and Rimantadine can reduce the duration of uncomplicated influenza A illness, and Zanamivir and Oseltamivir can reduce the duration of uncomplicated influenza A and B illness by approximately 1 day, compared with placebo. More clinical data are available concerning the efficacy of Zanamivir and Oseltamivir for treatment of Influenza A infection than for treatment of influenza B infection. However, in vitro data and studies of treatment among mice and ferrets, in addition to clinical studies, have documented that Zanamivir and Oseltamivir have activity against influenza B viruses.

Data are limited regarding the effectiveness of the four antiviral agents in preventing serious influenza-related complications (e.g., bacterial or viral pneumonia or exacerbation of chronic diseases). Evidence for the effectiveness of these four antiviral drugs is principally based on studies of patients with uncomplicated influenza. Data are limited and inconclusive concerning the effectiveness of Amantadine, Rimantadine, Zanamivir, and Oseltamivir for treatment of influenza among persons at high risk for serious complications of influenza. One study assessing Oseltamivir treatment primarily among adults reported a reduction in complications necessitating antibiotic therapy compared with placebo. Fewer studies of the efficacy of influenza antivirals have been conducted among pediatric populations. One study of Oseltamivir treatment documented a decreased incidence of otitis media among children. Inadequate data exist regarding the safety and efficacy of any of the influenza antiviral drugs for use among children aged <1 year.

To reduce the emergence of antiviral drug-resistant viruses, Amantadine or Rimantadine therapy for persons with influenza A illness should be discontinued as soon as clinically warranted, typically after 3–5 days of treatment or within 24–48 hours after the disappearance of signs and symptoms. The recommended duration of treatment with either Zanamivir or Oseltamivir is 5 days.

Chemoprophylaxis

Chemoprophylactic drugs are not a substitute for vaccination, although they are critical adjuncts in preventing and controlling influenza. Both Amantadine and Rimantadine are indicated for chemoprophylaxis of influenza A infection, but not influenza B. Both drugs are approximately 70%–90% effective in preventing illness from influenza A infection. When used as prophylaxis, these antiviral agents can prevent illness while permitting subclinical infection and development of protective antibody against circulating influenza viruses. Therefore, certain persons who take these drugs will develop protective immune responses to circulating influenza viruses. Amantadine and Rimantadine do not interfere with the antibody response to the vaccine. Both drugs have been studied extensively among nursing home populations as a component of influenza outbreak-control programs, which can limit the spread of influenza within chronic care institutions.

Among the Neuraminidase Inhibitor antivirals, Zanamivir and Oseltamivir, only Oseltamivir has been approved for prophylaxis, but community studies of healthy adults indicate that both drugs are similarly effective in preventing febrile, laboratory-confirmed influenza illness (efficacy: Zanamivir, 84%; Oseltamivir, 82%). Both antiviral agents have also been reported to prevent influenza illness among persons administered chemoprophylaxis after a household member was diagnosed with influenza. Experience with prophylactic use of these agents in institutional settings or among patients with chronic medical conditions is limited in comparison with the adamantanes. One 6-week study of Oseltamivir prophylaxis among nursing home residents reported a 92% reduction in influenza illness. Use of Zanamivir has not been reported to impair the immunologic response to influenza vaccine. Data are not available regarding the efficacy of any of the four antiviral agents in preventing influenza among severely immunocompromised persons.

When determining the timing and duration for administering influenza antiviral medications for prophylaxis, factors related to cost, compliance, and potential side effects should be considered. To be maximally effective as prophylaxis, the drug must be taken each day for the duration of influenza activity in the community. However, to be most cost-effective, one study of Amantadine or Rimantadine prophylaxis reported that the drugs should be taken only during the period of peak influenza activity in a community.

Persons at High Risk Who Are Vaccinated After Influenza Activity Has Begun

Persons at high risk for complications of influenza still can be vaccinated after an outbreak of influenza has begun in a community. However, development of antibodies in adults after vaccination takes approximately 2 weeks. When influenza vaccine is administered while influenza viruses are circulating, chemoprophylaxis should be considered for persons at high risk during the time from vaccination until immunity has developed. Children aged <9 years who receive influenza vaccine for the first time can require 6 weeks of prophylaxis (i.e., prophylaxis for 4 weeks after the first dose of vaccine and an additional 2 weeks of prophylaxis after the second dose).

Persons Who Provide Care to Those at High Risk

To reduce the spread of virus to persons at high risk during community or institutional outbreaks, chemoprophylaxis during peak influenza activity can be considered for unvaccinated persons who have frequent contact with persons at high risk. Persons with frequent contact include employees of hospitals, clinics, and chronic-care facilities, household members, visiting nurses, and volunteer workers. If an outbreak is caused by a variant strain of influenza that might not be controlled by the vaccine, chemoprophylaxis should be considered for all such persons, regardless of their vaccination status.

Persons Who Have Immune Deficiencies

Chemoprophylaxis can be considered for persons at high risk who are expected to have an inadequate antibody response to influenza vaccine. This category includes persons infected with HIV, chiefly those with advanced HIV disease. No published data are available concerning possible efficacy of chemoprophylaxis among persons with HIV infection or interactions with other drugs used to manage HIV infection. Such patients should be monitored closely if chemoprophylaxis is administered.

Other Persons

Chemoprophylaxis throughout the influenza season or during peak influenza activity might be appropriate for persons at high risk who should not be vaccinated. Chemoprophylaxis can also be offered to persons who wish to avoid influenza illness. Health-care providers and patients should make this decision on an individual basis.

Use During Pregnancy

No clinical studies have been conducted regarding the safety or efficacy of Amantadine, Rimantadine, Zanamivir, or Oseltamivir for pregnant women; only two cases of Amantadine use for severe influenza illness during the third trimester have been reported. However, both Amantadine and Rimantadine have been demonstrated in animal studies to be teratogenic and embryotoxic when administered at substantially high doses. Because of the unknown effects of influenza antiviral drugs on pregnant women and their fetuses, these four drugs should be used during pregnancy only if the potential benefit justifies the potential risk to the embryo or fetus.

Activities by Pandemic Phase – Antivirals

Phase 0, level 0 – Interpandemic Phase

- Define process through which national recommendations for priority groups will be reviewed.
- Quantify high priority populations for prophylaxis, and develop drug distribution contingency plans for the different possible scenarios.
- Quantify high priority populations for therapy, and develop drug distribution contingency plans for the different possible scenarios.

- Plans for education and notification of the medical community and of the public around appropriate prescribing information.
- Coordinate with bordering jurisdictions.
- Review workman's compensation laws as they apply to health care workers and other essential workers who have taken antivirals for prophylaxis.
- Consider developing data management system to track antiviral supplies, distribution, and use (for potential public sector supply).

Phase 0, levels 1 and 2 – Novel influenza virus identified

- Meet with appropriate partners and stakeholders and review major elements of the antivirals plan.
- Modify plan as needed to account for updates, if any, on recommended target groups and projected drug supply.
- Notify the medical community of the status of the plan and antiviral availability.
- Disseminate antiviral use guidelines to the medical community and conduct training for public health staff involved in antiviral distribution protocols and procedures.

Phase 0, level 3 – Pandemic Alert Human-to-human transmission confirmed

- Ensure that the human resources and logistics are in place to begin drug distribution and administration, taking into account the need for added staff due to illness.
- Coordinate with bordering jurisdictions.

Phase 1, 2, and 3 – Confirmation of onset of a Pandemic

- Fully activate antiviral drug distribution plan.
- Continue coordination with bordering jurisdictions.
- Implement data management system for antiviral distribution, use, and supply (if applicable).

Section 5
Surge Capacity

I. Introduction

The District of Columbia Department of Health's (DOH) strategy for health and medical surge capacity uses a modular approach to build on existing capability as needs grow. While pre-hospital and hospital communities have been engaged in assessing and building capability, additional sectors outside the hospital community (for example, clinics, physician offices, nursing homes) and associated health and medical support areas are necessary to add vital capacity to an organized system.

The proposal for DOH surge capacity provides immediate capacity through a mobile system while developing a process for sustainability using the mobile system as a hub to link existing assets. The mobile system will complement existing capability, facilitate interoperability, support personnel needs, and provide supplies and equipment for seventy-two hours of continuous operation without a need for replenishment.

II. Purpose

Casualty projections for intentional as well as naturally occurring healthcare emergencies can overwhelm existing resources. Even modest projections of 500 casualties per million population, require an immediate need to expand capacity in triage and treatment, critical care, stress management and mental health, and the potential for isolation and quarantine. The crosscutting issues of personnel, supplies and equipment, and facilities highlight the complexities and disparities in existing capabilities in U.S. hospitals, highlights the need for a system that can synchronize and build needed resources. Local healthcare systems face severe limitations in meeting the needs of any surge in patient volume.

The District has 2904 staffed hospital beds with an additional 475 in federal facilities. District hospitals average 40 available staffed beds on any given day. Available staffed beds in specialty units (critical care, burn, and pediatric patient care) have varying capability. Staffing patterns follow the patient census, resulting in challenges in rapid expansion even if the physical structure and the supplies and equipment exist. When the Pentagon was attacked on September 11, 2001, hospitals used internal resources to make available 200-staffed beds in District hospitals. The acuity level of the capability was not captured. The number of patients generated from the horrific events of September 11 stressed the collective medical capability of the National Capital Region (NCR), but with resources internal to the hospital community and the public's willingness to delay their scheduled medical visits to others in need, NCR hospitals were able to meet the demand for inpatient services. This is not true during yearly routine flu season when hospitals have trouble meeting the critical care needs of patients with respiratory distress. The needs projected for biological events are even more challenging.

A. Defining Surge Capacity

The Joint Commission on Accreditation of Healthcare Organizations defines surge capacity as " potential patient beds; available space in which patients may be triaged, managed, vaccinated, decontaminated, or simply located; available personnel of all types; necessary medications, supplies and equipment; and even the legal capacity to deliver health care under situations which exceed authorized capacity.

For hospitals and other healthcare facilities to meet demands for a rapid increase in services, associated health and medical support structure must have a process to seamlessly integrate their parallel systems. The SEMLES© surge approach encompasses the collective resources that support a rapid increase in health and medical services, including items such as:

- Broad incident management structure
- Communication systems
- Stress management
- Epidemiology and preventive medicine
- Laboratory
- Supplies and equipment support
- Transportation and patient evacuation assets
- Fatality management
- Administrative or command and control capability
- Veterinary, dental, and allied health support

Identifying the need to build surge capacity requires an assessment of existing capability, a projection of needs, and a gap analysis. The end state, or the point at which federal assistance may be available will define the surge needs. Figure 1 projects the gap in capability brought upon by a sudden surge in medical needs.

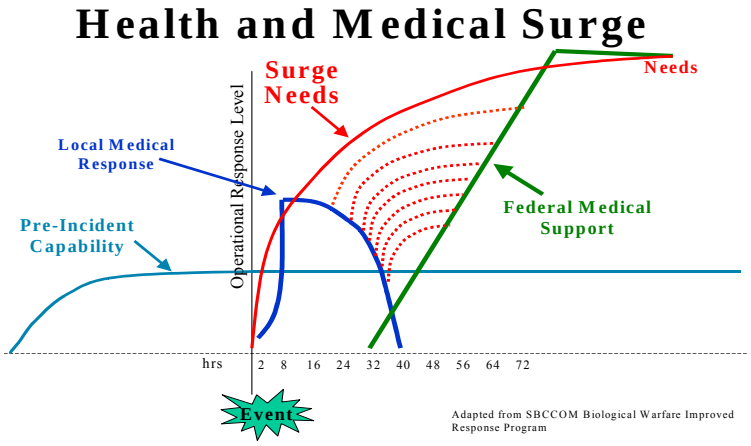


Figure 1 Surge needs

B. Immediate Need

DOH identified an immediate need to increase capability and capacity of the healthcare system in the District. After initial review of the hospital capability, DOH surge capacity established the following objectives:

- Synchronize existing capability
- Increase immediate capacity to manage at least 500 acute care victims
- Provide triage external to hospitals
- Prevent contamination of hospitals in contagious disease scenarios

- Identify a process to build initial capability while designing a sustainable long term solution
- Develop system resources for self-sufficiency with no resupply for 72 hours
- Establish regional interoperability

The need for isolation in a highly contagious disease situation compounds issues of surge capacity. The District of Columbia has 25 negative airflow isolation rooms dedicated to adult critical care. District emergency departments have 11 negative airflow rooms. The emergency department waiting areas are not equipped with negative airflow. Plans include increasing the number of negative airflow rooms and converting entire wings to isolation care.

III. Focus

The District's surge capacity program establishes a hub for synchronizing all functional areas relative to health and medical operations. The hub will monitor existing capability, identify shortfalls, and provide a mechanism to fill gaps in existing capacity. The District plan establishes the following capabilities:

- An immediate deployable expansion capability supporting currently defined needs related to triage and treatment, patient care, and potential isolation and quarantine. The deployable site is designed as a facility for triage and treatment, critical care, minimal care, and holding. The total number of patient care space is dependent upon the configuration. Current projections include a 500 patient triage and treatment, sixteen critical care, and 15 minimal care option. A 50 patient minimal care option is available. The numbers are flexible and can be increased as necessary.

- Equipment and supplies to provide rapidly expanding support for 72 hours of continuous operations. All projected patient capacity will include 72 hours of operational capability. Pharmaceuticals are not included.

- A field-training site to integrate personnel and processes with integrated training and response team. Provides operational implementation for concept. The site will operate along the lines of the incident management system. It provides a hub to facilitate local as well as regional interoperability through training for all members of the health and medical communities. Will become the operational staff during an incident. The field-training site will link with the Center for Domestic Preparedness and the Noble Training Center to facilitate standardized national interoperability.

- An embedded process for assessing and reevaluating to ensure a sustainable program and to provide a road map with defined measures of success.

IV. Local and Regional Planning

Plans to increase care in facilities operating at or near capacity will impact current practice. Any significant increase in the burden of care to treat significant numbers of emergency casualties will limit the ability to manage routine, as well as emergency, care unrelated to the catastrophic event.

Comprehensive Emergency Management (CEM) is the cornerstone of emergency management and provides the basis for healthcare disaster management. The Domestic Preparedness Planning (DPP) from the Biological Terrorism Improved Response Program (BW-IRP) developed templates for action to increasing capability. The Metropolitan Medical Response System (MMRS) provides guidelines for coordinating and collaborating with regional partners as well as existing medical and healthcare assets to coordinate activities. The National Disaster Medical System (NDMS) addresses the need for deployable teams, definitive care, and evacuation. The current challenge is to engage all resources and to provide for synchronized capability.

A local process that also synchronizes existing resources across jurisdictions can assist in developing needed surge capacity, must include synchronization of non-District assets. The District surge capacity will involve collaboration with non-District assets, however the initial focus will address organizing District assets in a way that can connect with non-District assets as the process matures. DOH is dedicated to participating with their partners.

V. Comprehensive Health and Medical Surge Capacity

The District's health and medical surge capacity operation fall into one of 6 different sectors. A seventh sector addresses regional and federal operations outside the District. Because all of the sectors have significantly different perspectives and different organizational structures, optimized surge capacity requires a comprehensive process to integrate activities across:

- Pre-hospital care (EMS)
- Hospital care
- Non-hospital healthcare assets
- Non-health*care* health and medical assets
- Non-health and medical assets that support health operations within the District
- Non-District assets (regional, national, and international).

A. Pre-hospital Surge Capacity

Pre-hospital care and EMS function under the fire service in the District. Their medical training is supported by DOH. EMS is a member of the traditional first responder community. The EMS community is not generally considered in the discussion of health and medical surge capacity. A review of pre-hospital surge capacity as it relates to the comprehensive health and medical community is necessary to identify system needs, capability and capacity to respond, and gaps.

B. Hospital Surge Capacity

Hospital care is the focus of the initial Bioterrorism Hospital Preparedness Program. An assessment of capacity and capability was initiated with the DOH Hospital Preparedness Survey in July 2002. As surge capacity concepts evolve, hospital surge capacity should not be isolated, but rather be considered within the context of the entire health and medical system.

C. Non-hospital Healthcare Surge Capacity

Non-hospital healthcare assets include a plethora of capabilities including facilities, supplies and equipment, personnel, and a process to put them together. Non-hospital healthcare assets are needed to complement hospital capability. Non-hospital healthcare is the primary focus of this review.

D. Non-healthcare Health and Medical Surge Capacity

Non-healthcare health and medical assets include support services such as laboratory, pharmacy, radiology, and occupational health. While many of these assets are found within hospital functions, many are independent. Many of the non-healthcare health and medical assets are part of public health or community assets. Others are privately owned assets. Within the context of a coordinated surge capacity process, the non-healthcare health and medical assets should be balanced to provide for a smooth surge in capability.

E. Non-health and Medical Direct Support for Surge Capacity

Non-health and medical assets that support health operations include critical services such as food and water, sanitation, transportation, non-medical supplies, and security. Comprehensive surge capacity will coordinate the need for increased needs in these critical areas. Assessing capability as other resources expand and providing a process to maintain support is essential.

VI. Partnerships and support teams

Partnerships and support teams are emerging from the existing programs designed to improve local and regional hospital and public health preparedness. Support is gaining with interest in defining a regional approach.

Federal support is focused on the DC VA Medical Center as well as the military hospitals and the National Capitol Region Joint Headquarters program. Federal programs within the District who have medical teams associated with their organizations are a part of other local and regional programs addressing surge capacity.

A. Volunteer Coordination Planning

The concept for recruitment and coordination of volunteers centers on an integrated an approach that crosses jurisdictional boundaries. The approach incorporates:

- Initially identification of the pool of volunteers available, working with area volunteer organizations
- Validation of volunteer qualifications
- Integration of volunteer resources, by functional area, into the resource allocations of community and regional response plans
- Preparation of the data system and supporting databases for coordination and resource allocation, tailored to response plans for particular crises

The end objective is rapid and efficient identification, assignment, mobilization and tracking of volunteer resources in a crisis response situation.

B. Implementation

A series of steps are essential to building a functioning system. Key to the approach is the designation of a position of volunteer coordinator. The coordinator and potentially the staff that works under that position will direct the implementation of the system and any subsequent operations that evolve.

- **Step 1 – The identification of a volunteer pool**. Initially the typology of volunteers is developed and evaluated in terms of existing response plans and resource needs. Once completed an outreach program is developed and coordinated through an interface with volunteer organizations citywide. All participating organizations are encouraged to interface, through the Internet, with the Volunteer Response Center Coordinator. The central system is automatically populated during a disaster by connecting directly to systems that support non-profit organizations that utilize volunteers on a day-to-day basis.

- **Step 2 – Credentialing.** After identification, the next step is to credential volunteers. The type of credential received will depend on volunteer status, job that one will perform, and needs of the organization. National security screening is the minimum credential. Professional licensure, certification, and education are primary areas that will need to be validated before credentialing, especially among medical professionals. Every volunteer will be credentialed before being activated in the Center's database.

- **Step 3 – Integration of Volunteers into Incident Response.** The integration of volunteers into a response activity will be accomplished by analyzing with response planners the available resources and the need to replenish dwindling resources over the course of an event. Templates will be developed for the allocation of volunteer resources. Resource allocation will be noted in the Center's database for each incident, with information on the timing and reporting location for each volunteer. In each case, back-up and augmentation volunteers will be identified.

- **Step 4 – Implementation of the Supporting System.** A system is presently available to meet virtually all the requirements for implementation of the concept for volunteer recruitment and coordination. The system, Volunteer Coordination and Response System (VCRS) by *EAI Corporation*, **i**s comprised of software modules for recruitment, volunteer resources, plan allocation, and response. These are supported by databases that are interactive capable with both web based and PC based inputs.

VII. Assumptions

In developing a sustainable concept for surge capacity, the following assumptions are made:

- The capacity to expand healthcare capability beyond hospitals in necessary. Public health has the responsibility to synchronize existing health and medical capability and to plan and implement a system to rapidly expand this capacity.

- Hospitals are currently functioning at or near capacity under normal circumstances. They will maximize their capability to provide care for casualties from critical incidents as well as do everything they can to maintain normal operations. Elective procedures and routine care may have to be delayed during emergency operations.

- A modular approach with numerous interoperable options can provide solutions based on the needs of any one particular locality.

- A mobile solution will provide immediate capacity and can provide the hub for an operational system to synchronize available assets.

- A sustainable solution may be different within the District as well as across the region to coordinate and synchronize programs and to provide a template for the nation in optimizing surge capacity.

Section 6

Surveillance
&
Laboratory Diagnosis

Pandemic Influenza Surveillance, Investigation, and Reporting

Influenza is generally an acute, self-limiting upper respiratory infection that is easily transferred from person to person through respiratory droplets (via coughing, sneezing, etc.) It is highly communicable for a variety of reasons, including its ease of transmission, short incubation period, infectivity before the onset and in the early stages of symptoms, and ability to remain viable outside the body for hours, especially in cold weather. During the annual influenza season, complications and death occur in a limited proportion of cases, particularly among high-risk groups like older persons and young children whose bodies are immunologically weaker. Common complications include secondary bacterial infections and exacerbation of existing chronic conditions, like cardiopulmonary disease. A "normal" influenza season in the United States typically results in 36,000 deaths and more than 200,000 hospitalizations nationally, with mortality and severe morbidity largely concentrated in person over the age of 65 years.[1]

The clinical signs and symptoms of influenza: Influenza viruses are spread from person to person primarily through the coughing and sneezing of infected persons. The incubation period for influenza is 1–4 days, with an average of 2 days. Adults typically are infectious from the day before symptoms begin through approximately 5 days after illness onset. Children can be infectious for $\geq$10 days, and young children can shed virus for $\leq$6 days before their illness onset. Severely immunocompromised persons can shed virus for weeks or months.[2]

Surveillance for influenza requires global and national monitoring both for virus strain and disease activity. Timely identification of circulating or novel virus strains, including those from avian and animal sources, is important for pandemic detection and vaccine preparation. Monitoring influenza disease activity is important to facilitate resource planning, communication, intervention, and investigation. An analysis of the viral strains referred to World Health Organization's (WHO) global influenza laboratory network leads to recommendations for annual vaccine production. As novel strains are identified, such as avian H5N1 of H7N7 strains that were implicated in human infection in 1997 and 2003 and 2004, reference strains and seed viruses appropriate for manufacturing can be developed, candidate vaccines can be produced, and appropriate reagents can be prepared for diagnostics and vaccine evaluation.[3]

The United States Centers for Disease Control and Prevention (CDC) coordinates national influenza surveillance. This national surveillance consists of four components: laboratory surveillance, outpatient influenza-like-illness (ILI) surveillance, pneumonia and influenza related mortality surveillance, and assessment of influenza activity in individual states. Usually, influenza surveillance is conducted from October through mid-May; however, there are efforts to conduct year-round reporting in recognition that unusual outbreaks and pandemic influenza can occur at anytime.

Activities by pandemic phase – Surveillance

Phase 0, level 0 – Interpandemic Phase

As well as participating in the national influenza surveillance activities, the Bureau of Epidemiology and Health Risk Assessment (BEHRA) Division of Disease Surveillance and Investigation (DDSI) conducts influenza surveillance for the District of Columbia in conjunction with the Bureau of Communicable Disease Control (BCDC). The DDSI relies upon passive and active systems of influenza surveillance. There are five surveillance activities that the DDSI relies upon: Sentinel site surveillance, Hospital Emergency Department ILI admissions monitoring, Syndromic surveillance, Outbreak investigations, and Public Health Laboratory testing.

- **Sentinel Site surveillance:** The DDSI conducts the yearly sentinel surveillance for ILI and influenza and provides this data to the CDC. The surveillance is accomplished through a reporting network of 13 voluntary sites. These sites consist of daycare centers, college health units, hospital laboratories, private practices and long-term care facilities throughout the District of Columbia. The volunteer sites report ILI and influenza on a weekly basis during the influenza season. Included in the 13 voluntary sites are two sentinel physician sites for the District of Columbia, 1 physician/250,000 population. The two sentinel physician sites are at the George Washington University and Walter Reed Army Medical Center. Cases from these two sentinel physician sites are reported to the CDC as part of the national influenza sentinel-provider surveillance system.

    - Each week a DDSI disease investigator records total cases of ILI and influenza in the District as reported by these sentinel sites. The weekly totals are posted in the weekly influenza update that is distributed by a DDSI epidemiologist and sent to all contributing healthcare practitioners, sentinel sites and other DOH agencies.
    - Data provided by the sentinel sites are combined with other influenza surveillance data nationwide to create a national picture of ILI and influenza activity in the United States. Sentinel surveillance provides critical monitoring of the impact of influenza and is used to guide prevention and control activities, vaccine strain selection, and patient care. ILI and influenza sentinel reporting for the year begins on October 1 and ends on May 31 of the following year.

- **Hospital Emergency Department ILI Admissions Monitoring:** In addition to the sentinel reporting, the nine (9) District hospitals also report ILI and influenza to DDSI during the influenza season. Hospitals report total number of ILI and influenza cases admitted through the emergency department (ED) on a daily basis to the DDSI. Case information collected includes name, medical record number, gender, age and DOB. This information is entered into an MS Access database and data analysis is performed.

- **Syndromic Surveillance: District of Columbia:** In conjunction with syndromic surveillance, which is conducted by BEHRA/DDSI for bioterrorism detection, influenza surveillance is performed using the syndromic surveillance data received from the nine District of Columbia hospital EDs. The data collection period covers the October to May influenza season.

- As part of the syndromic surveillance system, participating hospitals send ED logs with data fields including: date, time, age, gender and chief complaint to DDSI daily. The data is then coded into one of eight syndromes (death, sepsis, rash, respiratory illness, gastrointestinal illness, unspecified infection, neurological illness and other) based on the chief complaint.
- For influenza surveillance in the District of Columbia, all ED cases coded with respiratory illness (RI) or unspecified infection (UI) syndromes are entered individually into an MS Access database. These two particular syndromes best reflect ILI and influenza occurrence since flu symptoms included fever, cough, congestion and body aches. The case-specific variables collected are date, day of week, age, gender, syndrome, chief complaint, diagnosis (if available), disposition, time of visit and hospital.
- Each week, influenza data from syndromic surveillance are combined into a dataset. Then SAS statistical software is used to analyze the week's data including percentages of RI and UI and age group distributions.

National Capital Region (NCR): The syndromic data is also used for influenza surveillance in the NCR. Counts and percentages of RI and UI syndromes from Maryland, Virginia and the District of Columbia are compiled on a daily basis to yield a state-specific and regional view of ILI and influenza occurrence. Reports from this syndromic data are sent to regional partners (Maryland and Virginia) for comparison to their daily reports and to yield an NCR perspective on ED ILI patient syndromes.

- A SAS statistical program is also used to calculate percentages of RI and UI in the NCR and age group distributions of these two syndromes. NCR results along with District-specific syndromic surveillance results are included in the weekly influenza surveillance report.
- Since reporting for influenza is on a weekly basis, it is important that data entry and statistical analyses be performed in a timely manner.

CUSUM Algorithm

A Cumulative Summation (CUSUM) algorithm is used to analyze unusual increases in each of the eight syndromes at each hospital (2).

- The CUSUM algorithm uses three different moving average calculations (mild, medium, and ultra) to identify unusually high occurrences of each syndrome.
  - The mild calculation uses a moving average of syndrome counts for the 7 days preceding the ED visit.
  - The moving average for the medium calculation uses counts for the previous third through ninth days.
  - The moving average for the ultra calculation is for the 3 preceding days.
- Upper limits for all three calculations are set to the moving average plus 3 standard deviations, and observed daily syndrome counts are compared to each upper limit. This aberration detection is used to track days that flag a high occurrence for RI and/or UI

during the influenza season. In this manner, both ILI and influenza occurrence in the District and at the NCR level can be closely monitored. For additional details concerning syndromic surveillance and the CUSUM aberration method, please refer to the DDSI Syndromic Surveillance Protocol.

- **Outbreak Investigation:** Reporting outbreaks of ILI or influenza in the District of Columbia to the District of Columbia Department of Health are required.
    - An outbreak is defined as an increase in cases of ILI or influenza within a short period of time.
    - An outbreak is based on three or more cases of ILI or influenza that occurs within a 7-day period in an institution. An outbreak of influenza is reported to BEHRA/DDSI for investigation and reporting.

- **Public Health Laboratory Testing:** The Public Health Laboratory (PHL) performs influenza testing. The PHL uses real-time Polymerase Chain Reaction (PCR) protocols for typing and sub-typing human influenza specimens. The laboratory is involved in testing specimens collected during the influenza season and in outbreak investigations.

Phase 0, levels 1 and 2 – Novel influenza virus identified

Global collaboration, under the coordination of the WHO, is a key feature of influenza surveillance. Through the establishment of an international laboratory-based surveillance network, the WHO can receive information about emergence and spread of new antigenic variants of influenza. The information is used to update the formulation of influenza vaccine, and provide an early as possible warning of a pandemic.

- If the international laboratory network detects a novel virus, it is the responsibility of the DC DOH to issue a novel virus alert to health care providers.
- Epidemiologists will monitor their surveillance systems for any activity. Activities will include any increase in the number of sentinel site reports, ILI reports from hospital emergency departments, respiratory and unspecified infection syndromes from syndromic surveillance, any reported ILI outbreaks, and laboratory confirmation of influenza.
- Other non-traditional data that is available or are in future plans may aid in determining a potential outbreak situation.
    - Examples of non-traditional sources of information include: over-the-counter sales of pharmaceuticals, school absenteeism, ambulance calls, animal health, poison control center calls, and direct laboratory connections.
- These data would be captured close to real-time occurrence.

Phase 0, level 3 – Pandemic Alert human-to-human transmission

To aid in the identification of an outbreak situation, the BEHRA/DDSI can use any combination or one of the surveillance methods mentioned. The health care practitioners and the District of Columbia Department of Health disease investigators must be aware of the clinical and

epidemiological criteria to classify any potential influenza cases. Under DC regulations, influenza is a reportable disease if an unusual number of cases occur in a short time period.

- All surveillance activities will be enhanced including the collection of clinical specimens for testing at the PHL. The PHL should be notified to expect a specimen from a specified hospital with patient name and the assigned CDC Influenza identification number (if available).
    - The telephone numbers for the PHL are: (202) 727-8955, (202) 727-8956, and (202) 727-8957.
- Once the PHL receives the specimen it must be properly labeled and packaged for shipment to the CDC viral laboratory.
- The specimen from the PHL must be accompanied with a CDC Lab Submission Form before being sent to the CDC viral laboratory.
- The epidemiologist should receive results of viral tests to add to an individual's case report.
- In addition, the health care practitioner and the individual may be notified of the laboratory results. (Potential letter templates are attached for a health care practitioner and the individual).

Phase 1, 2, and 3 – Confirmation of onset of pandemic

In a pandemic situation, the BEHRA/DDSI epidemiologists will continue its surveillance activities to track influenza cases and identify trends. This is important in understanding the status and the burden the pandemic has upon resources and the ability to respond.

- Epidemiologists should also be prepared to produce an investigation report to keep the Department of Health Medical Director up-to-date with influenza within the District of Columbia.
- The continuance of surveillance activities in an outbreak situation can be dependent upon the setting where the outbreak is occurring. In a long-term care facility, the surveillance may continue for weeks or months after the last case. In a daycare setting, surveillance activities may continue for 7 days after the last case. Surveillance activities in a pandemic should remain vigilant 10 days after the last case is identified unless otherwise directed by the state epidemiologist.

Phase 4 – Second Wave

If another wave of infections occur, all surveillance activities will be enhanced until the pandemic is over or until the end of the flu season or until no new cases are detected 10 days after the last case unless otherwise directed by the state epidemiologist.

Phase 5 – Pandemic Over

- Resume normal activities.
- Produce a final epidemiological assessment report of the pandemic.

Page Left Blank

Role of Laboratory Diagnosis

Appropriate treatment of patients with respiratory illness depends on accurate and timely diagnosis. Early diagnosis of influenza can reduce the inappropriate use of antibiotics and provide the option of using antiviral therapy. However, because certain bacterial infections can produce symptoms similar to influenza, bacterial infections should be considered and appropriately treated, if suspected. In addition, bacterial infections can occur as a complication of influenza.

Influenza surveillance information and diagnostic testing can aid clinical judgment and help guide treatment decisions. The accuracy of clinical diagnosis of influenza on the basis of symptoms alone is limited because symptoms from illness caused by other pathogens can overlap considerably with influenza. Influenza surveillance by state and local health departments and CDC can provide information regarding the presence of influenza viruses in the community. Surveillance can also identify the predominant circulating types, subtypes, and strains of influenza.

Diagnostic tests available at the DCPHL for influenza for influenza include viral culture, serology, rapid antigen testing, polymerase chain reaction (PCR) and immunofluorescence. Sensitivity and specificity of any test for influenza might vary by the laboratory that performs the test, the type of test used, and the type of specimen tested. Among respiratory specimens for viral isolation or rapid detection, nasopharyngeal specimens are typically more effective than throat swab specimens. The results of any diagnostic test should be evaluated in the context of clinical information available to health-care providers.

Commercial rapid diagnostic tests are available that can be used by laboratories in outpatient settings to detect influenza viruses within 30 minutes. These rapid tests differ in the types of influenza viruses they can detect and whether they can distinguish between influenza types. Different tests can detect 1) only influenza A viruses; 2) both influenza A and B viruses, but not distinguish between the two types; or 3) both influenza A and B and distinguish between the two. The types of specimens acceptable for use (i.e., throat swab, nasal wash, or nasal swab) also vary by test. The specificity and, in particular, the sensitivity of rapid tests are lower than for viral culture and vary by test. Because of the lower sensitivity of the rapid tests, physicians should consider confirming negative tests with viral culture or other means. Further, when interpreting results of a rapid influenza test, physicians should consider the positive and negative predictive values of the test in the context of the level of influenza activity in their community. Package inserts and the laboratory performing the test should be consulted for more details regarding use of rapid diagnostic tests.

Despite the availability of rapid diagnostic tests, collecting clinical specimens for viral culture is critical, because only culture isolates can provide specific information regarding circulating influenza subtypes and strains. This information is needed to compare current circulating influenza strains with vaccine strains, to guide decisions regarding influenza treatment and chemoprophylaxis, and to formulate vaccine for the coming year. Virus isolates also are needed to monitor the emergence of antiviral resistance and the emergence of novel influenza A subtypes that might pose a pandemic threat.

Laboratory Diagnostic Procedures for Influenza

Diagnosis of influenza

Influenza illness can include any or all of these symptoms: fever, muscle aches and headache, lack of energy, dry cough, sore throat, and possibly runny nose. The fever and body aches can last 3-5 days and the cough and lack of energy may last for 2 or more weeks. Influenza can be difficult to diagnose based on clinical symptoms alone because the initial symptoms of influenza can be similar those caused by other infectious agents including, but not limited to, *Mycoplasma pneumoniae*, adenovirus, respiratory syncytial virus, rhinovirus, Para influenza viruses, and *Legionella*.

A number of tests can help in the diagnosis of influenza (see table). But, tests do not need to be done on all patients. For individual patients, tests are most useful when they are likely to give a doctor results that will help with diagnosis and treatment decisions. During a respiratory illness outbreak, however, testing for influenza can be very helpful in determining if influenza is the cause of the outbreak.

Appropriate samples for influenza testing can include a Nasopharyngeal or throat swab, nasal wash, or nasal aspirates, depending on which type of test is used. (See table.) Samples should be collected within the first 4 days of illness. Rapid influenza tests provide results within 24 hours; viral culture provides results in 3-10 days. Most of the rapid tests that can be done in a physician's office are approximately >70% sensitive for detecting influenza and approximately >90% specific. As much as 30% of samples that would be positive for influenza by viral culture may give a negative rapid test result. And, some rapid test results may indicate influenza when a person is not infected with influenza.

Serum samples also can be tested for influenza antibody to diagnose recent infections. Two samples should be collected per person: one sample within the first week of illness and a second sample 2-4 weeks later. If antibody levels increase from the first to the second sample, influenza infection likely occurred. Because of the length of time needed for a diagnosis of influenza by serologic testing, other diagnostic testing should be used if a more rapid diagnosis is needed.

During outbreaks of respiratory illness when influenza is suspected, some samples should be tested by both rapid tests and by viral culture. The collection of some samples for viral culture is essential for determining the influenza subtypes and strains causing illness, and for surveillance of new strains that may need to be included in the next year's influenza vaccine. During outbreaks of influenza-like illness, viral culture also can help identify other causes of illness when influenza is not the cause.

Influenza Diagnostic Table				
Procedure	**Influenza Types Detected**	**Acceptable Specimens**	**Time for Results**	**Rapid result available**
Viral culture	A and B	NP swab [2], throat swab, nasal wash, bronchial wash, nasal aspirate, sputum	5-10 days [3]	No
Immunofluorescence DFA Antibody Staining	A and B	NP swab [2], nasal wash, bronchial wash, nasal aspirate, sputum	2-4 hours	No
RT-PCR [5]	A and B	NP swab [2], throat swab, nasal wash, bronchial wash, nasal aspirate, sputum	1-2 days	No
Serology	A and B	paired acute and convalescent serum samples [6]	>2 weeks	No
Enzyme Immuno Assay (EIA)	A and B	NP swab [2], throat swab, nasal wash, bronchial wash	2 hours	No
Rapid Diagnostic Tests				
Directigen Flu A [7] (Becton-Dickinson)	A	NP swab [2], throat swab, nasal wash, nasal aspirate	<30 minutes	Yes
Directigen Flu A+B [7, 9] (Becton-Dickinson)	A and B	NP swab [2], throat swab, nasal wash, nasal aspirate	<30 minutes	Yes
FLU OIA [7] (Thermo Electron)	A and B [4]	NP swab [2], throat swab, nasal aspirate, sputum	<30 minutes	Yes
FLU OIA A/B [7, 9] (Thermo Electron)	A and B	NP swab [2], throat swab, nasal aspirate, sputum	<30 minutes	Yes
XPECT Flu A/B [7, 9] (Remel)	A and B	Nasal wash, NP swab [2], throat swab	<30 minutes	Yes
NOW Flu A Test [7, 9]	A	Nasal wash, NP swab [2]	<30 minutes	Yes
NOW Flu B Test [7, 9] (Binax)	B	Nasal wash, NP swab [2]	<30 minutes	Yes
QuickVue Influenza Test[8] (Quidel)	A and B [4]	NP swab [2], nasal wash, nasal aspirate	<30 minutes	Yes
QuickVue Influenza A+B Test[8] (Quidel)	A and B [9]	NP swab [2], nasal wash, nasal aspirate	<30 minutes	Yes
SAS Influenza A Test [7, 9]	A	NP wash [2], NP aspirate [2]	<30 minutes	Yes
SAS Influenza B Test [7, 9]	B	NP wash [2], NP aspirate [2]	<30 minutes	Yes
ZstatFlu [8] (ZymeTx)	A and B [4]	throat swab	<30 minutes	Yes

1. List may not include all test kits approved by the U.S. Food and Drug Administration
2. NP = nasopharyngeal
3. Shell vial culture, if available, may reduce time for results to 2 days
4. Does not distinguish between influenza A and B virus infections
5. RT-PCR = reverse transcriptase polymerase chain reaction
6. A fourfold or greater rise in antibody titer from the acute- (collected within the 1st week of illness) to the convalescent-phase (collected 2-4 weeks after the acute sample) sample is indicative of recent infection.
7. Moderately complex test – requires specific laboratory certification.
8. CLIA-waived test. Can be used in any office setting. Requires a certificate of waiver or higher laboratory certification
9. Distinguishes between influenza A and B virus infections

Activities by pandemic phase – Laboratory

Phase 0, level 0 – Interpandemic Phase

The essential requirement for effective national and state pandemic surveillance is a well-functioning Interpandemic system that includes:

- The Public Health Laboratory isolates and subtypes influenza viruses during the influenza season and maintains the capability of isolating and sub-typing influenza viruses year round, and reports these data weekly to CDC year round

- The Public Health Laboratory continues to perform viral cultures and PCR testing in the face of increasing usage of rapid influenza diagnostic tests.

- The Public Health Laboratory is (or is working toward) transmitting their influenza data (positives and negatives) electronically to CDC via the Public Health Laboratory Information System.

- An influenza sentinel provider program with at least a minimum number of health care providers (1/250,000 persons or a minimum of 10 providers in states with smaller populations) that regularly report their weekly data to CDD via Internet year round.

    - These providers should be encouraged to send specimens collected from patients with ILI at the beginning, middle, and end of the season to the state laboratory for viral culture at no charge to the provider.

- An active state influenza surveillance coordinator who:

    - Monitors sentinel provider data weekly for completeness and/or errors
    - Provides feedback and maintains contact with sentinel providers weekly to encourage reporting and follow-up on unusual reports
    - Contributes to state pandemic planning insures and activities
    - Establishes and maintains strong working relationships with the state laboratory
    - Encourages sentinel providers to submit specimens for viral culture to the state laboratory

- Weekly assessment of overall influenza activity level (none, sporadic, regional, widespread) in the District and reporting of that data to CDC by noon each Tuesday.

Phase 0, levels 1 and 2 – Novel influenza virus identified

The Centers Disease Control and Prevention (CDC) continuously monitors surveillance data reported nationally and is in frequent communication with public health colleagues around the world so that novel viruses are detected and investigated as quickly as possible. If a state is notified by the CDC that a novel influenza virus has been identified but efficient transmission of the virus from person to person is not yet established (that is, a novel virus alert), the District will enhance Interpandemic influenza surveillance activities by:

- Increasing detection among persons who recently traveled to the outbreak area and present with clinical illness possibly caused by influenza including pneumonia, acute respiratory distress syndrome, or other severe respiratory illness.

    - Appropriate specimens should be collected to diagnose influenza infection. In some situations, if the novel influenza virus is a highly pathogenic avian strain, such as with the 2004 H5N1 influenza virus in Asia, local hospital laboratories should not attempt viral isolation because of the potential risk that the strain could spread.
    - Specimens should be sent to the Public Health Laboratory or to the CDC where isolation and subtyping can be done under more stringent biocontainment conditions.
    - Influenza infection can be diagnosed locally using antigen detection, immunofluorescence, or PCR. The CDC will be provided guidance appropriate to each specific novel virus alert.

- Ensuring that all Interpandemic influenza surveillance activities are underway regardless of the time of year and that all participating laboratories and sentinel providers are reporting data to the CDC each week.

- Subtyping all influenza A viruses identified in clinical specimens and, as always, reporting any influenza A viruses that cannot be subtyped to the CDC immediately. The CDC will provide instructions on the safe handling of a potential novel influenza virus.

- Obtaining reagents from the CDC (when they become available) to detect and identify the novel strain.

- Recruiting and enrolling additional sentinel providers, if necessary, to reach the minimum of one regularly reporting provider for every 250,000 persons (minimum of 10 in states with smaller populations).

- Monitoring and instituting recommendations from the CDC for any additional surveillance activities that should be undertaken given the specific circumstances.

- Reviewing contingency plans for further enhancing influenza surveillance if efficient person-to-person transmission of the novel virus is confirmed.

Phase 0, level 3 – Pandemic Alert human-to-human transmission

If efficient person-to-person transmission of a novel influenza virus is confirmed, the following additional surveillance enhancements should be made:

- Investigating the early epidemiology of all early cases either originating in the US or that are imported into the country.

- Hospitals and emergency departments increasing laboratory diagnosis of influenza, including through use of rapid antigen detection tests, for persons with compatible

clinical syndromes, particularly among those who may have had recent exposure at the site of an outbreak.

  - Laboratories should institute plans for testing substantially more specimens than usual. The CDC will provide guidelines to assist with triage of specimens for testing and for choosing which isolates to send to the CDC.

- The District will investigate outbreaks and increases in ILIs, including those detected through the influenza sentinel provider surveillance system.

Phase 1, 2, and 3 – Confirmation of onset of pandemic

- Enhanced monitoring of antiviral resistance.

- Ensuring that studies are in place to monitor vaccine effectiveness.

- Monitoring health impacts including deaths and hospitalizations. By measuring absenteeism in key industries or sectors community impacts could be assessed.

- During the period between pandemic waves (Phase 3) and after the pandemic (Phase 5), the quality of surveillance should be assessed and recommendations made for improvement.

Section 7

Communication & Education

I. Purpose

Before, during, and after a health emergency, the main purpose of communication is to provide timely, accurate, and easily understood information and instructions to the public. The lines of communication into and out of the District of Columbia Department of Health (DOH) to the many agencies responsible for disseminating information before, during and after a health emergency must be clear and precise.

Risk communication is branded as a split module of risk analysis. All relevant parties are responsible for participating in risk communication. It is imperative that discussion is ongoing among stakeholders throughout the risk analysis process.

It includes two important elements:

- Information Acquisition from stakeholders, which includes risk perception and prioritization from stakeholder's points of view.
- Information distribution to stakeholders, which includes describing how risk(s) were assessed and plans for how risk(s) will be managed.

During high-impact emergencies, the media serves as a vital information conduit to the public. So as part of their effort to protect public safety, response officials must ensure that the information the media disseminates is accurate, appropriate, understandable, and timely.

Communicating effectively through the media, however, requires an understanding of the media's role and constraints, as well as a good sense of how reporters are likely to perceive, understand, and interpret what they hear and see.

II. Concept of Operations

Emergencies are classified into two types: anticipated and unanticipated. Anticipated emergencies are events with a relatively long lead-time before arrival, such as influenza season. Unanticipated emergencies have a short lead-time, with little or no warning, such as an outbreak of food borne illness, an act of bioterrorism, or an influenza pandemic.
To assess quickly and accurately the effect of a public emergency on the population and infrastructure of the area, emergency managers must require early intelligence on various areas, some of which are listed below. This information facilitates accurate assessment of what response activities and material are required to save lives, relieve human suffering, and expedite response and recovery operations:

- Location of the impacted area
- Social, economic, and political impacts
- Jurisdictional boundaries involved
- Status of operating facilities
- Hazard specific information
- Weather data affecting operations
- Status of key personnel

- Status of ESF activation
- Status of disaster or emergency declaration
- Major issues and activities of ESFs
- Overall priorities for response, and
- Historical and demographic information

A. Notification Procedures

The Bioterrorism Response Plan outlines the notification procedures to be followed during a public health emergency. According to these procedures, the designated Health Emergency Response Team (HERT) Public Information Officer (PIO) will be notified in the event of an emergency. EHMSA will be responsible for notifying the designated Public Information Response Team contacts in coordination with the PIO. EHMSA will maintain a confidential, up-to-date list of response team contacts.

B. Responsibilities

During an emergency, the Mayor of the District of Columbia is the chief person responsible for communicating health risk information to the public. The Mayor's Press Secretary is always the lead PIO and primary spokesperson for the District of Columbia. They will also be responsible for coordinating and disseminating official statements on behalf of the Mayor.

The Department of Health will function as technical medical consultant, assist in the collection of health and medical related information and plan development, and assist in dissemination of health and medical related information for the public. The DOH PIO in coordination with the EHMSA PIO will perform this function. The DOH Director of Communications will be the designated HERT PIO. This officer will direct public information activities through the JIC and coordinate with the Health Emergency Coordination Center (HECC).

The HERT PIO will report to the Director of DOH, who will serve as the Incident Commander during a public health emergency. The Chief Medical Officer will be the designated "Spokesperson" for the Department of Health. The Spokesperson will be responsible for communicating health risk information in coordination with the Mayor's Office. Staff will be designated to serve in one of several positions, with varying responsibilities, on the Public Information Response Team.

C. Joint Information Center (JIC)

In coordination with the Mayor's Office, the Emergency Management Agency (EMA) will activate a Joint Information Center (JIC). Various agencies within District government, DOH, and stakeholder organizations will provide PIOs to the JIC to ensure the coordination and release of accurate and consistent information. The primary responsibility of the PIOs responding the JIC is to assess and report to the lead PIO items of information relevant to the emergency operations of their particular agency. This responsibility is paramount and continues throughout the entire health emergency. This information must be quickly coordinated, verified, and disseminated so that key officials are kept abreast of all situations as the unfold. The Mayor's

Press Secretary and the PIOs from various government agencies will manage the dissemination of information to the media and to the public during the emergency.

D. Call Center

EHMSA will designate a Chief Call Center Specialist responsible for the emergency operation of the call center at 64 New York Avenue NE. They will be responsible for notifying call center staff, daily call center operations, and maintaining 24-hour-a-day operations as necessary. The Chief Call Center Specialist will be responsible for establishing resource guides for the call center specialists, which contain These administrative information, call center procedures, contact lists, information on recent health alerts, frequently asked question and answers, and other references.

II. Dissemination of Information and Materials

A. The HAN and RICC Systems

DOH will provide rapid notification and warning to key officials, stakeholders, our federal partners and key entities through the HAN; a communications system designed for the efficient flow of information. The HAN has the capacity to broadcast public health alerts and information to all tiers of the public health infrastructure through a system that can circulate information to beepers, phones, and faxes simultaneously. The system also allows for specific individuals or groups of individuals in the system's database to be contacted.

All appropriate federal and regional agencies and personnel will be part of the HAN system. Authorized users will be able to send broadcasts from a touch-tone phone or the computer based system at the state health department. One thousand users can be alerted in less than an hour. Listings will be updated on an ongoing basis. In addition, access to the HAN via the Internet will allow authorized users to post alerts and other information and send email to all HAN participants, selected individual or groups depending.

The Regional Incident Communications and Coordination System (RICCS) is a virtual system is designed by COG to facilitate the communication among local, regional, and federal government authorities to ensure an effective and timely response to regional emergencies and incidents. Currently housed at DC EMA is used for effective regional communication.

B. Information Verification And Approval Procedures

There are two types of communication materials: medical and non-medical. Medical material is intended to communicate medical and scientific information, such as disease processes (i.e. signs and symptoms) and information treatments. Non-medical material includes information such as hotline phone numbers and where the public should report to receive prophylaxis.

In emergency procedures for reviewing, verifying, and approving medical and non-medical communications materials is important. It is critical that procedures be followed so that the information released by DOH is consistent and coordinated.

- **Medical Material**

  All requests for medical material will be submitted to the HERT PIO. The HERT PIO will assign a response team Information Specialist to coordinate the development of this material with DOH medical professionals. It is important that DOH accurately and effectively translate scientific information for the general public.

  Once the information is prepared, an Information Specialist will submit the material to the HERT PIO for approval. The HERT PIO will be responsible for obtaining approval from the Chief Medical Officer (who is responsible for coordinating with and informing the Incident Commander) and releasing the information.

- **Non-Medical Material**

  All requests for non-medical material will be submitted to the HERT PIO. The HERT PIO will assign a response team Information Specialist to coordinate the development of this material with DOH HERT staff members.

  Once the information is prepared, the Information Specialist will submit the material to the HERT PIO for approval. The HERT PIO will be responsible for obtaining approval from the Administrator of EHMSA (who is responsible for coordinating with and informing the Chief Medical Officer and Incident Commander) and releasing the information.

C. Subject Matter Experts, The Media and The Web

Experts such as those with the CDC and the Johns Hopkins University Center for Civilian Biodefense will be used due to their knowledge on varied subject matter.
The Department of Health maintains written policies and procedures, and a list of media contacts. The following additional contact lists and procedures for disseminating information (e.g., blast fax and list serve) to these contacts will be established and maintained. Procedures for posting materials on the DOH Web site will be coordinated with the DOH Office of Information Technology and Office of the Chief Technology Officer (OCTO).

D. Debriefing And Evaluation System

Key public health staff involved during an emergency will perform an evaluation of emergency public information activities after an event has ended. EHMSA will be responsible for coordinating after-action reports and lessons-learned documents.

IV. The Challenge

Emergencies occur with little or no warning. Therefore, the public should be made aware of potential hazards and protective actions before an emergency occurs. Demand for public health information inside and outside a disaster area may exceed the capabilities of DOH staff. Additional assistance may be needed from its ESF #5 and #14 partners. Health information is

critical to prevent overloading of the healthcare system by those who are concerned but don't require acute care.

In the aftermath of a health emergency, information can be often erroneous, vague, difficult to confirm, and contradictory, causing confusion. It is imperative that all parties involved maintain constant and effective communications.

Activities by pandemic phase - Communication

Phase 0, level 0 – Interpandemic Phase

- Identify and train spokesperson (and backup) to the media and to the public
- Plan responses to anticipated questions.
- Develop materials and messages.
- Identify most effective communication channels for reaching different communities.
- Plan to establish hot line and Web site to respond to pandemic inquires (for instance, regarding the location of immunization clinics), and assure that systems are in place to deal with anticipated surge capacity.
- Plan for coordination of messages between public health officials, and all involved partners.
- Educate public health officials, politicians, and the media about what information will and will not be available during a pandemic.
- Review CDC materials and adapt and revise as needed.

Phase 0, levels 1 and 2 – Novel influenza virus identified

- Review materials and revise as needed.
- Disseminate information to public and partners on an ongoing basis.
- Educate public health officials, politicians, community leaders, and the media about what information will and will not be available during a pandemic.
- Prepare spokespersons.
- Coordinate with boarding jurisdictions.
- Activate hotline.

Phase 0, level 3 – Pandemic Alert Human-to-human transmission confirmed

- Review major elements of the plan with partners and stakeholders.
- Disseminate information to the public, partners, and the media on an ongoing basis.
- Monitor media coverage and address misinformation.
- Coordinate with bordering jurisdictions.

Phase 1, 2, and 3 – Confirmations of onset of a Pandemic

- Review and modify messages and materials as needed'
- Continue to monitor media coverage and address misinformation.
- Activate hotline.

- Continue to disseminate credible information as it becomes available to the public and all partners.
- Coordinate with bordering jurisdictions.

Assumptions

1. Dissemination and sharing of timely and accurate information among public health and government officials, health care providers, the media, and the general public will be one of the most important facets of the pandemic.
2. There will be widespread circulation of conflicting information, misinformation, and rumors. Communication must be coordinated among all relevant agencies to ensure consistent messages to the general public.
3. There will be great demand for accurate and timely information regarding:

    - Circulation of pandemic strain
    - Disease burden
    - Disease complications and mortality
    - Disease control efforts, including availability and use of vaccines, antivirals and other preventive and treatment measures
    - "Do's and Don'ts" for the general public
    - Maintenance of essential community services

4. There will be a special need for educating the public and the health care community about the rationale for priority groups once priority groups have been determined will be an important aspect of public education.
5. Public Education will be an important part of the immunization campaign
6. Certain groups will be hard to reach, including people whose primary language is not English, people who are homeless and, people who are hearing and visually impaired.
7. Demand for information by health care providers will be so great that existing methods for educating health care providers will have to be expanded during the inter-pandemic period.
8. Because of anticipated shortages of both vaccine and antivirals, planning around messages informing the population about availability and addressing the rationale for priority groups and measures to be taken until such are available will be critical.
9. A credible and trained spokesperson must be identified and responses to anticipated media questions should be prepared.
10. Key planning activities relate to preparation of materials, and identification of channels of communication.

Section 8
Schools and Childcare Settings

Preventing the Spread of Influenza (the Flu) in Child Care Settings

Symptoms

Symptoms of influenza include fever (usually high), headache, extreme tiredness, dry cough, sore throat, runny or stuffy nose, and muscle aches. Nausea, vomiting, and diarrhea also can occur, and are much more common among children than adults.

Spread of Influenza

The main way that influenza is spread is from person to person through coughing and sneezing. This can happen when droplets from the cough or sneeze of an infected person travel through the air and reach the mouth or nose of people nearby. Sometimes influenza can be spread when a person touches droplets, nose drainage or saliva from an infected person, or a soiled object, and then touches one's own (or someone else's) nose or mouth before washing hands.

Preventing Spread of the Influenza in Child Care Settings

Vaccination against the influenza each fall remains the primary way to prevent this disease. Vaccination, along with other measures, also may help to decrease the spread of influenza among children in the childcare setting and among care providers.

Encourage influenza vaccination for children and care providers in childcare settings.

Influenza vaccine is recommended for all children 6-23 months of age, care providers of children 0-23 months of age in the child care setting, and persons $\geq$2 years of age who have high-risk medical conditions which puts them at risk for influenza-related complications.

Hand washing

Remind children and care providers to wash their hands or use alcohol-based hand rubs, and make sure that supplies are available.

- Encourage care providers and children to **use soap and water to wash hands when hands are visibly soiled**, or an alcohol-based hand rub when soap and water are not available, and hands are not visibly soiled.
- Encourage care providers to wash their hands to the extent possible between contacts with infants and children, such as before meals or feedings, after wiping the child's nose or mouth, after touching objects such as tissues or surfaces soiled with saliva or nose drainage, after diaper changes, and after assisting a child with toileting.
- Encourage care providers to wash the hands of infants and toddlers when their hands become soiled.
- Encourage children to wash their hands when they become soiled. Teach children to wash hands for 15-20 seconds (long enough for children to sing the "Happy Birthday" song twice).
- Oversee the use of alcohol-based hand rubs by children and avoid using these on the sensitive skin of infants and toddlers.

- Rub hands thoroughly until the alcohol has dried, when using alcohol-based hand rub.
- Keep alcohol-based hand rubs out of the reach of children to prevent unsupervised use.
- Ensure that sink locations and restrooms are stocked with soap, paper towels or working hand dryers.
- Ensure that each child-care room and diaper changing area is supplied with alcohol-based hand rub when sinks for washing hands are not readily accessible. **Alcohol-based hand rubs are not recommended when hands are visibly soiled.**

Cleaning

Keep the child-care environment clean and make sure that supplies are available.

- Clean frequently touched surfaces, toys, and commonly shared items at least daily and when visibly soiled.
- Use an Environmental Protection Agency (EPA) registered household disinfectant labeled for activity against bacteria and viruses, an EPA registered hospital disinfectant, or EPA registered chlorine bleach (hypochlorite) solution. Always follow label instructions when using any EPA registered disinfectant. If EPA registered chlorine bleach is not available and a generic (i.e., store brand) chlorine bleach is used, mix ¼ cup chlorine bleach with 1 gallon of cool water.
- Keep disinfectants out of the reach of children.

Cover Your Cough

Remind children and care providers to cover their noses and mouths when sneezing or coughing (See Appendix A).

- Advise children and care providers to cover their noses and mouths with a tissue when sneezing or coughing, and to put their used tissue in a wastebasket.
- Make sure that tissues are available in all nurseries, childcare rooms, and common areas such as reading rooms, classrooms, and rooms where meals are provided.
- Encourage care providers and children to wash their hands or use an alcohol-based hand rub as soon as possible, if they have sneezed or coughed on their hands.

Sick Days

Observe all children for symptoms of respiratory illness, especially when there is increased influenza in the community.

- Observe closely, all infants and children for symptoms of respiratory illness. Notify the parent if a child develops a fever (100˚F. or higher under the arm, 101˚F. orally, or 102˚F. rectally) and chills, cough, sore throat, headache, or muscle aches. Send the child home, if possible, and advise the parent to contact the child's doctor.

- Encourage parents of sick children to keep their children home. Encourage sick care providers to stay home.
- Encourage parents of sick children to keep the children home and away from the childcare setting until the children have been without fever for 24 hours, to prevent spreading illness to others. Similarly, encourage sick care providers to stay home.

Consult your local health department when increases in respiratory illness occur in the childcare setting.

- Consult with your local or state health department for recommendations to prevent the spread of respiratory illness.
- Any decisions about closing a school due to increased influenza activity should be made in consultation with the department of health. It is unknown whether school closings are beneficial in controlling the spread of influenza.

Prevention and Control of Communicable Disease in the DC School System

I. Introduction

The outbreak of infectious around the world has aroused and generated grave concern about the possible significant impact on our health, livelihood, economy, and education system as well as that of the world. With the selfless service of our medical workers and the concerted efforts of all sectors, the preventive campaign has become an all people's movement. Citizens have not only increased their awareness of the dangers of infectious diseases, including influenza, but many have also been actively taking precautionary measures. With the development of guidelines for the immediate implementation of a series of monitoring and quarantine measures, there could be immediate stabilization of new cases when they occur. Nevertheless, we must continue to be on the alert and reinforce personal and household hygiene.

Prevention is better than cure and while we hope for new breakthroughs in the medical diagnosis and treatment, educators must be actively involved in teaching our next generation how to cope with the changes of emerging diseases. We should not only take the lead in stepping up the precautionary measures in the personal, family, school and social aspects of prevention and hygiene, but should also set a good example of fulfilling our social and civic obligations in formulating school contingency measures. We should base our professional decisions on the benefits and learning needs of our students. We should make full use of this special learning opportunity to increase our students and parents awareness of communicable diseases through various means, and further develop and strengthen their sense of responsibility towards the community.

To assist schools in solving problems arising from an influenza pandemic and other emerging infectious diseases, the Department of Health (DOH) will collaborate with the School Health Program, the District of Columbia Public Schools (DCPS), the Parent Teachers Association (PTA), and the Board of Education to develop and monitor relevant guidelines and protocols.

II. Prevention and Control of Communicable Diseases

Communicable diseases are those diseases that can be transmitted person-to-person. The transmission of an organism is dependant upon many factors, including the type of organism, the dose of organism one receives, route of the transfer of organism, and the physical condition of the receiving host. Any interruption of this process decreases the likelihood of illness from the organism. Both students and staff have a responsibility in the prevention of transmission of communicable diseases.

The following preventative measures should be communicated to and reviewed frequently by both students and staff in all schools within the District of Columbia:

- **Hand Hygiene** – Hands should be cleaned at anytime they are visibly soiled, before preparing or eating food or beverages and after using the restroom. Facilities and supplies should be readily available for both students and staff to accomplish this. Schools should have a contingency plan to provide these services if there is disruption of water service to

the facilities. A good alternative is a waterless 60% alcohol based hand solution. The goal is to limit the transfer of organism to the environment and from human contact.

- **Respiratory Hygiene** - Some infections are spread when a person coughs or sneezes causing respiratory droplets to be propelled into the surrounding air. Once in the air they can be inhaled and possibly infect others. The goal is to break the transmission cycle by controlling the droplets propelled in the air**.** Appropriate tissue use can be an effective means of decreasing the respiratory droplets propelled into the air.

- **Universal Precautions** – This is the practice where blood and all body fluids are considered infectious and therefore barrier protection should be used and materials handled cautiously. A risk assessment should be done prior to handling or cleaning up blood and/or body fluids.

- **Separation and Grouping –** This is the practice of keeping the well from the ill. Ideally this is accomplished in separate physical spaces however if this cannot be done then separation is accomplished by placing as much physical distance between the groups as possible within the current space. The basic concept would also include staying home when ill.

II. Definitions of Common Terms used in a Disease Investigation:

Index Case – This term pertains to the initial person identified with a specific illness. For example, the first known case of chicken pox in a school would be termed the "index case" for all cases that are later associated with this episode of chicken pox.

Close Contacts – A term used to describe those individuals that have cared for, or have lived with, or had direct contact with the respiratory secretions and/ or body fluids of a person diagnosed with a communicable disease such as influenza or Pertussis.

Line List – A list of names and other pertinent information that is gathered during the investigation of a cluster of illness or symptoms. Information requested will vary with the nature of the illness being investigated.

Outbreak – A sudden increase in the incidence of an illness or disease.

Endemic – An illness or disease that is prevalent to particular area or population.

Epidemic – An illness affecting a population, community or region in excess of normal expectancy.

Pandemic – A disease that is affecting or attacking the population of a large geographic region, country, or continent; extensively epidemic.

Quarantine – the separation of people **who are not ill,** but have been exposed to a communicable disease from the general population, as they may or may not be infected. This

restriction of movement is intended to stop the spread of that illness. People may be quarantined at home or other specified locations.

Isolation – the restriction of the movement of a known infected individual or group in order to keep them separated from the uninfected in an attempt to stop the spread of an illness, such as influenza. Individuals may be isolated at home, the hospital or other specified location.

IV. Reporting Communicable Disease

The Bureau of Communicable Disease Control (BCDC), within the Office of Primary Care, Prevention and Planning, is responsible for the investigation of communicable diseases within the District of Columbia.

If a school believes that a student or staff member has a communicable disease it should contact BCDC at 202-442-5842, 202-442-9371 or 202-442-9131. They should be prepared to give the following information:

- **School** - name, location, contact person's name and telephone number
- **Case Information** - name, home address, current location, symptoms, onset date and time, emergency contact information and do they participate in before or after school activities.
- **Contacts Information** - Provide a list of a classmates/teachers. Are any students or teachers ill? (If yes then be prepared to supply same information listed in case information)

A. Interim Actions for Schools

The extent to which an infectious disease can be controlled within the school often depends on the interim actions taken by the school itself. Once a student presents with an illness an assessment should be made to determine the mostly likely route of transmission for the symptoms presenting. The following syndromic table is to serve as a guide for interim actions to be taken by the school to limit transmission opportunities until a complete medical evaluation by a healthcare provider can determine the diagnosis of the individual.

Symptoms	Possible Disease	Possible Transmission Routes	Actions
Rash (With or without fever)	Chickenpox Measles Smallpox Fifth Disease Impetigo	Person-to-person by direct physical contact and /or airborne spread by respiratory droplets	Examine rash wearing gloves, if it is vesicular, separate individual from others, healthcare worker to wear a mask; do not give aspirin products

Respiratory Cough, sore throat, congestion	Influenza SARS Pertussis	Person-to-person by direct physical contact and/or airborne spread by respiratory droplets	Provide tissues for individual to cover mouth when coughing and a means of disposal, frequent hand washing, provide fluids, separate from others and begin to determine contacts. If a mask is available it should be placed on the individual if not tolerated then the person caring for them should wear the mask.
Gastrointestinal: Diarrhea, nausea, vomiting, abdominal pain fever **Neurological**	Food poisoning Varies depending on causative agent Hepatitis A Salmonella Shigella Meningitis Encephalitis	Person-to-person direct contact, often by fecal contamination, contaminated food or beverages	Provide fluids if tolerated, frequent hand washing, restrict from handling food or beverages for others.
Change in mental status, with or without fever, stiff neck, sensitivity to light			Monitor closely, separate from others and transport for medical evaluation as soon as possible, frequent hand washing
Fever	Usually a preliminary symptom to an illness		Provide fluids, monitor temperature, separate from others

B. Educational and Organizational Efforts

Schools should form ad-hoc crisis and containment management teams to plan and manage matters relating to the prevention of the spread infectious diseases, such as planning courses for staff members and students to increase knowledge about infectious diseases and their transmission, contingency measures when staff members and students have contracted a disease, arrangements concerning class suspension and resumption. All staff members, students and parents should be informed of the arrangements.

Schools should share their experiences enabling them to learn from each other, formulate effective policies and develop a networking system to share best practices. The District of Columbia Department of Health can serve as a resource and reviewer of these practices to ensure they are based on current scientific evidence.

Parental participation is key to an effective prevention and control program. Parental education can take place through PTA meetings, fact sheets, and newsletters. Explanations of home quarantine and isolation should to be discussed with parents. Parents need to be aware of their child's current immunization status for vaccine preventable diseases and keep abreast of their child's day-to-day health, such as, do they have a fever, muscle aches, productive cough, rash or diarrhea. If their child is sick they **should not** be sent to school and parents should seek medical attention for the child from their health care provider.

Breaking the transmission cycle will be the key to controlling an outbreak of communicable disease, such as influenza. Parents should understand their responsibility to notify the school **immediately** if their child is diagnosed with a communicable disease. The school will then notify the BCDC and begin to gather contact information if requested by BCDC. In some cases, such as influenza, a child may be kept at home, on home quarantine or isolation, for a specific period of time, usually until the period of communicability has passed. This timeframe varies with each disease.

- Educational efforts should target common means of transmission such as:
    - Sharing common towels
    - Sharing food, beverages or utensils
    - Failure to wash hands prior to fixing food and /or beverages and after using the toilet
    - Failure to cover a cough or sneeze or to wash hands afterwards
    - Frequent cleaning and disinfecting common use items or equipment

- Special consideration for Influenza would include:
    - Notification of BCDC immediately if a cluster of illness or increase in absenteeism is seen.
    - Use of class-teacher period to remind students of symptoms common to influenza and to be aware of their own or their classmates' physical health condition. If they are unwell, they should inform their teachers or classmates immediately.
    - Signage throughout school educating all to covering their cough or sneeze and frequent hand washing afterwards.
    - Hand washing signage should be placed in all restrooms.
    - Access to the school should be controlled. All visitors, students and staff should be screened for illness.
    - Cleaning and disinfection should be maintained on a frequent daily schedule or at anytime an item is visible soiled. Use of commercially prepared disinfecting clothes such as, Clorox wipes, is acceptable for small clean up. All schools should understand the difference between a cleaning product and a disinfectant.

- School administrators should be aware of their school's ventilation systems and how these systems circulate air throughout the building. Is it a large common system? Can a portion of the system be shut down? How is that done? What is the recommended maintenance of the air filters?
- Large common gatherings should be avoided if there is evidence of community spread of influenza. This would include field trips, dances, final exams, school assemblies, and may necessitate school closure until the Department of Health advises to reopen school.
- All healthcare staff should be fit tested for a N-95 particulate respiratory prior to receiving their initial school assignment

- Additional Measures if Influenza is suspected:

  - Isolate the symptomatic individual from others.
  - Wear a N-95 mask and gloves when receiving an individual.
  - If a surgical mask is available place on sick individual if tolerated.
  - Monitor temperature and respiratory status while awaiting disposition.
  - When handling anything contaminated with blood or body fluids wear gloves and a mask, dispose of promptly and wash hands carefully afterwards. Take care not to contaminate self.
  - Develop a school contact list of those who have had close contact with an ill individual (see page 2 for definition of close contact).
  - Contact BCDC at 202-442-5842, 202-442-9371 or 202442-9131.
  - Alert anyone transporting individual of symptoms, control measures and notify receiving institution of individual's condition.
  - Students suspected of influenza should not be readmitted to school until at least 10 days have passed since their last symptom and they have received clearance from the Department of Health and / or their healthcare provider.

- Recommended Supplies

  - Signs explaining cough etiquette/respiratory hygiene
  - Waterless alcohol hand washing solution
  - Adequate supply thermometers
  - Adequate supply of tissues
  - Adequate supply of non-sterile gloves
  - Several boxes of surgical type mask

IV. Basic Principles – Student-centered, School-based, Professionally-led, Flexible

1.1 In approaching universal prevention, schools should protect students' health and take care of their learning needs as well. Schools should make school-based professional decisions taking into consideration their special circumstances and suggestions in this Handbook by following the principle of school-based management. In making important decisions, such as re-arrangement of school holidays due to class suspension, schools should obtain the consent of teacher

representatives, the Parent-Teacher Association (PTA), the School Administration, and the Board of Education.

1.2 Schools should form ad-hoc crisis and containment management teams to plan and manage matters relating to the prevention of the spread infectious diseases, such as planning courses for staff members and students to increase knowledge about infectious diseases, contingency measures when staff members and students have contracted a disease, arrangements concerning class suspension and resumption. All staff members, students and parents should be informed of the arrangements.

1.3 School leaders should keep abreast of the latest developments and pay attention to the online news and information from the DC Department of Health (website: www.dchealth.dc.gov). Principals should remind their staff members and parents to browse the homepage for announcements from the Department of Health (or a school entity?). Schools should share their experiences with other schools, and to learn from each other and formulate effective policies. In the case of sudden, unforeseen events, Principals should exercise their professional leadership in taking proactive and flexible measures with reference to the suggestions of this Handbook.

VI. Preventive Measures Before and After Class Resumption

Measure	Details	Remark/ Annex
2.1 Civic Education	Everyone has a responsibility for combating Infectious Diseases, such as influenza. • Explain to all staff members and students the importance of personal hygiene in preventing the spread of infectious diseases, such as influenza. Noting the serious consequences may emphasize to everyone in the community their responsibility for preventing the spread of infectious diseases. Staff members and students should to seek medical advice immediately, and notify the school and Department of Health, in case of any suspected infectious disease involving themselves or their families. • Include relevant topics on the prevention of contagious diseases, such as influenza, in the learning activities. Adopt diverse learning modes to enhance the students' awareness and concern. Observation and discussion of real cases could be used to guide students to review and analyze related issues. Explore what to do and what not to do at the time of adversity for one's own benefit and that of others as well as the issue of evasion/acceptance of one's social responsibility. Moreover, students	For information on influenza, please refer to the homepage of the Centers for Disease Control and Prevention (CDC). www.cdc.gov

Measure	Details	Remark/ Annex
	should be asked to practice good personal hygiene to avoid infection, and to help, care for and encourage those in need. They should also deliver the message to their relatives and friends.	
2.2 Parents' Participation	**Home-school cooperation in combating Infectious Diseases/Influenza** • Schools should disseminate relevant messages to parents through seminars or newsletters and distribute pamphlets or information such as the hotline numbers and websites and remind them of the importance of personal and household hygiene. • Schools should call on parents to join the combat against infectious diseases, such as influenza. Schools should ask parents to send with their children boxes of tissues to school and to take their children's temperature before they go to school if they suspect illness. If their children have any symptoms of illness like coughing and running nose etc, they should not go to school. School can also request parents to provide information on students' health condition, including the medical history of illness during class suspension period and confirmation of having taken students' temperature before they go to school. • Schools should explain to parents the general symptoms of influenza (i.e. cough, fever, muscle aches) and urge them to keep an eye on their children's health condition. If their children have a fever and other symptoms like body pain and lack of energy, chills, headache, cough and shortness of breath, they should not go to school and should seek medical attention immediately. If their children are confirmed/suspected of having contracted influenza, parents should notify the school at once. • Schools should advise parents to avoid visiting places affected by influenza with their children and not to let their children go to crowded place unless absolutely necessary.	

Measure	Details	Remark/ Annex
	• In fighting against influenza and other infectious diseases, schools should recruit parent volunteers through the PTA to assist in cleaning, disinfection and taking care of students. Students can be trained to look after themselves. Schools may also call on their PTA to provide additional support to school including human and material resources. To ensure a clean and hygienic learning environment for students, parents who go to school should not be ill or have a cough or fever, and inquire if there are any special measures that the school requires of them.	Parents should keep a daily log, taking and recording temperature and symptoms twice daily.
2.3 Precautionary Measures	Provision of a safe teaching and learning environment for staff members and students • Schools should formulate precautionary and contingency measures according to Department of Health and CDC guidelines. The measures should cover personal and environmental hygiene. Staff members, students and parents should be informed of the measures. They should also be reminded to adhere to the measures strictly. Prevention of the spread of influenza should start with the individual, the family and the school by carrying out the precautionary measures.	
Personal Hygiene	• Ideally for maintaining good personal hygiene, all staff members and students should wash their hands with liquid soap and avoid touching the eyes, nose or mouth with the hands. Do not share towels and utensils. School should remind parents to urge their children to bring tissues to school. Staff members and students not feeling well should not go to school. • Schools should purchase thermometers for use by staff members and students when necessary. To avoid infection probe covers must be used and thermometers must be wiped with alcohol after each use. Non-disposable probe covers for ear thermometers can be re-used after proper cleaning with alcohol after each use.	

Measure	Details	Remark/ Annex
Environmental Hygiene	• Schools should make use of assembly or class-teacher period to remind students to be aware of their own or their classmates' physical health condition. If they feel ill, they should inform their teachers or classmates immediately. Students should also be reminded not to share utensils, lunch boxes or drinks. • Maintain good cleanliness and ventilation in the school hall and classrooms. Disinfections with cleansing cloths (i.e. Clorox) should be conducted regularly. Windows should be kept open. Air filters should be cleansed frequently if air-conditioners are used. Objects and equipment frequently touched by students, such as computer keyboards, should be wiped regularly with diluted household bleach (or disinfectant wipes). Toys of students should be soaked regularly in diluted household bleach, and thoroughly cleaned and rinsed thereafter. • Attention should be paid to the cleanliness condition of animals kept in school as well. • If the school premises are used by an evening school or hired to outsiders for activities, they should require all those who enter the school premises to wear facemasks and upkeep personal and environmental hygiene. All those who have a fever or are ill should not enter the school. After the activities, the school premises and objects used need to be cleaned and disinfected.	
Other arrangements	• Keep an up-to-date sick leave record of students and staff members and obtain their prior consent for the release of personal data, such as names and telephone numbers to Department of Health for investigation and follow-up action. • Principals and teachers should pay particular attention to the mental and health condition of staff members and students. If illness is spotted, they should take their temperature. If a student or staff member is unwell (including school bus driver and school bus assistant), they should take a rest in an	

Measure	Details	Remark/ Annex
	isolated and quiet place. A family member should be contacted to take them home. In the case of a student, they should be sent home with a note suggesting medical attention, after evaluation by a school official, preferably the School Nurse. • If the student is with a fever or seriously ill, they should be sent to an emergency room at a nearby hospital if a parent or guardian cannot be contacted, with attempts still made to contact a parent or guardian. • In case of an unusual increase in absentees or a large number of absentees having symptoms similar to those of influenza, e.g. fever; cough, headache, body pain and lack of energy, the Department of Health should be notified immediately. • If there is a suspected or probable case of influenza in the school the Department of Health may recommend that the school be closed and classes suspended until the emergency has ended. • Staff and other school employees will need to contact their primary care physicians for any medical care required and the Principal for time away from work.	

District of Columbia Department of Health (DOH)

Telephone numbers for DOH are given below:

Main Number	202-442-5955
Bureau of Communicable Disease Control	202-442-8542, 442-9371, or 442-9131
Department of Health Call Center	202-671-5000

Department of Health website: www.dchealth.dc.gov

District of Columbia Public Schools (DCPS)

Telephone numbers for DCPS are given below:

Main Number (Office of Communications)	202 –442-5635
Board of Education	202- 442-4289

DCPS website www.k12.dc.us

References:

Association for Professionals in Infection Control and Epidemiology (APIC)
Centers for Disease Control and Prevention (CDC)
Healthcare Infection Control Practices Advisory Committee (HICPAC)